

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**OPTIS WIRELESS TECH., LLC, ET AL.,**

**Plaintiffs,**

**v.**

**HUAWEI TECHS. CO. LTD., ET AL.,**

**Defendants.**

**CIVIL ACTION NO.**

**2:17-cv-123-JRG-RSP**

**FILED UNDER SEAL**

**[PROPOSED] FINDINGS OF FACT AND CONCLUSIONS OF LAW**

Pursuant to Federal Rule of Civil Procedure 52 and the Court’s Order (Tr. 8/27 at 201-203), Plaintiffs PanOptis Patent Management, Optis Wireless Tech LLC, and Optis Cellular Tech LLC (collectively, “PanOptis” or “Plaintiffs”) and Defendants Huawei Device USA, Inc., and Huawei Device Co. Ltd., jointly propose the following Findings of Fact and Conclusions of Law Regarding PanOptis’ Count IX.

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****I. FINDINGS OF FACT****A. Procedural Background**

**[PFF1]** On February 10, 2017, PanOptis filed this action against Defendants Huawei Technologies Co. Ltd. and Huawei Device USA, Inc. alleging infringement of U.S. patent Nos. 7,769,238 (“the ’238 patent”), 6,604,216 (“the ’216 patent”), 7,940,851 (“the ’851 patent”), 8,385,284 (“the ’284 patent”), and 8,208,569 (“the ’569 patent”). Dkt. 1. As a part of its initial complaint, PanOptis also filed a declaratory judgment claim requesting a declaration that PanOptis complied with its FRAND obligations in its negotiations with Huawei. *Id.* at 32, 34.

**[PFF2]** On March 21, 2017, PanOptis filed a Second Amended Complaint, adding Optis Cellular Technology, LLC as co-Plaintiff and adding infringement allegations on U.S. Patent 8,102,833 (“the ’833 patent”), and 8,437,293 (“the ’293 patent”). Dkt. 22.

**[PFF3]** On April 14, 2017, PanOptis filed a Third Amended Complaint, adding Huawei Device Co. Ltd. as co-Defendant. Dkt. 31.

**I. FINDINGS OF FACT****A. Procedural Background**

**[DFF1]** In February 2017, PanOptis filed the original Complaint in this lawsuit. Dkt. 1.

**[DFF2]** On April 17, 2017, PanOptis filed the Third Amended Complaint, alleging that certain Huawei products infringe U.S. Patent Nos. 7,769,238 (“the ’238 patent”), 6,604,216 (“the ’216 patent”), 7,940,851 (“the ’851 patent”), 8,385,284 (“the ’284 patent”), 8,208,569 (“the ’569 patent”), 8,102,833 (“the ’833 patent”), and 8,437,293 (“the ’293 patent”). Dkt. 31.

**[DFF3]** PanOptis alleged that the ’216 patent, the ’851 patent, the ’284 patent, the ’569 patent, the ’833 patent, and the ’293 patent (collectively, the “Asserted LTE Patents”) are essential to the LTE standards. Dkt. 31 ¶¶ 63, 71, 80, 92, 102, 111. PanOptis alleged that certain Huawei products infringe the Asserted LTE Patents because they

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The parties then filed a Joint Motion to Dismiss Huawei Technologies Co. Ltd. Dkt. 42. Huawei Device Co. Ltd. later became known as Huawei Device (Shenzhen) Co., Ltd. (collectively with Huawei Device USA, Inc., “Huawei”). Dkt. 242.

**[PFF4]** Count IX to PanOptis’ Third Amended Complaint is its FRAND declaratory judgment claim: “PanOptis is entitled to a declaratory judgment that it has complied with its obligations arising from declaring its patents essential to various standards, and any applicable laws, during their negotiations with Huawei concerning a worldwide license under the PanOptis standards essential patents.” Dkt. 31 at 40.

**[PFF5]** Before trial in August 2018, PanOptis dropped its patent infringement assertions for the ’851 and the ’833 patents. Dkt. 240. Ultimately, PanOptis brought claims from five patents—the ’216, the ’284, the ’569, the ’293, and the ’238 patents—to trial. Dkt. 252. PanOptis alleges that four of the five patents—the ’216, the ’284, the ’569, and the ’293 patents—are essential to the LTE standard. Dkt. 243

comply with LTE standards. Dkt. 31 ¶¶ 61–118.

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(Pretrial Order) at 4. PanOptis and/or its predecessors-in-interest have declared that those patents “may be or may become” essential to the European Telecommunication Standards Institute (“ETSI”) and have committed to license them in accordance with ETSI’s IPR Policy. Tr. 8/20 PM at 85:24-86:8; Tr. 8/24 AM-PM at 54:5-14.

**[PFF6]** A jury trial commenced on August 20, 2018. At trial, PanOptis contended that Huawei’s mobile devices infringed the patents-in-suit. Dkt. 243 at 3, 5-7. In response, Huawei asserted that the accused products did not infringe the ’284, ’216, and ’238 patents, and that the asserted claims of the ’569, ’293, and ’238 patents were invalid. *Id.* at 4. After the close of evidence, the Court held as a matter of law that the ’293 patent was infringed, and that the ’216 and ’284 patents were not invalid. Tr. 8/23 PM at 175:12-14, 21-23.

**[PFF7]** Following a five-day trial and deliberations spanning three days, the jury returned a verdict that the asserted claims of the patents-in-suit, including the four asserted declared-essential patents, i.e., the ’216, the ’284, the ’569, and the ’293 patents (collectively, the “Infringed LTE

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Patents”), were infringed by Huawei. Dkt. 291; Tr. 8/27 (verdict) at 3:24-4:9. The jury further found that each of the asserted claims of the patents-in-suit is not invalid, and that each of the patents-in-suit was willfully infringed by Huawei. Dkt. 291; Tr. 8/27 (verdict) at 4:10-5:9.

**[PFF8]** To compensate PanOptis for Huawei’s infringement, the jury awarded PanOptis damages, in the form of a running royalty, totaling \$10,553,565. Dkt. 291; Tr. 8/27 (verdict) at 5:10-6:3. The jury’s damages award amounts to [REDACTED] for the Infringed LTE Patents and an additional [REDACTED] for the ’238 patent. Tr. 8/21 PM at 180:14-19; *see also* Tr. 8/21 PM (sealed) 20:3-19.

**[PFF9]** In addition to the jury trial, the Court collected additional evidence related to PanOptis’ declaratory judgment claim during a bench trial held August 27, 2018.

**[PFF10]** PanOptis alleges that the Infringed LTE Patents, along with a number of other patents in its Optis Wireless and Optis Cellular portfolios, are essential to the LTE standard. Dkt. 243 at 3-4. The parties agree that PanOptis is bound to license those patents, and any other

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patents it has declared essential, on fair, reasonable, and non-discriminatory ("FRAND") terms and conditions. Tr. 8/24 AM-PM at 54:5-14.

**[PFF11]** Huawei disputes that some of PanOptis' Infringed LTE Patents and other of PanOptis' declared essential patents are actually essential to any standard, but it nonetheless contends that PanOptis is bound to license the Infringed LTE Patents, as well as any other essential patents PanOptis may own, on FRAND terms and conditions. *See generally* Dkt. 70 (Huawei's Amended Answer to PanOptis' Third Amended Complaint) at 31-33 (alleging PanOptis violated its FRAND obligations); Dkt. 171 (Huawei's Reply in Support of its Motion to Dismiss) at 1 (noting that Huawei's affirmative defenses require determining whether or not PanOptis breached its FRAND obligations). Huawei specifically contends that PanOptis' declarations to ETSI constitute a contract and that PanOptis breached that contract during negotiations with Huawei. *See* Dkt. 70 (Huawei's Amended Answer to PanOptis' Third Amended Complaint) at 31-33 (pleading several

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equitable defenses, including patent misuse, unclean hands, and breach of contract, related to PanOptis' alleged failure to comply with FRAND); DX 367; DX 372; Tr. 8/22 AM at (sealed) 18:11-19:7; Tr. 8/23 PM (sealed) at 7:23-8:10 (testimony from Huawei's expert).

**[PFF12]** To resolve this dispute, PanOptis requests a declaration that it has complied with its contractual obligations to ETSI, and that PanOptis' most recent offer to Huawei complies with the FRAND commitment. Dkt. 31 at 40; Dkt. 243 at 4. Huawei has and continues to allege that PanOptis has breached its contractual obligations, but Huawei presented no evidence at the bench trial in support of these allegations. *See* DX 372; Tr. 8/22 AM at (sealed) 18:11-19:7; Dkt. 70 at 31-33; Tr. 8/23 PM (sealed) at 7:23-8:10 (testimony from Huawei's expert).

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****B. The Parties**

**[PFF13]** Plaintiffs Optis Wireless Technology, LLC (“Optis Wireless”), Optis Cellular Technology, LLC (“Optis Cellular”), and PanOptis Patent Management, LLC (“PPM”) are limited liability companies organized and existing under the laws of the State of Delaware that each maintain a principal place of business at 7160 Dallas Parkway, Suite 250, Plano, TX 75024. Dkt. 243 at 5.

**[PFF14]** Defendant Huawei Device USA, Inc. (“Huawei Device”) is a seller of numerous mobile device products that incorporate wireless communication technologies, including smartphone handsets and tablets. *See* Tr. 8/22 AM at 64:15-23. Huawei Device is organized under the laws of Texas and maintains its principal place of business at 5700 Tennyson Parkway, Suite 500, Plano, Texas 75024. Dkt. 243 at 5.

**[PFF15]** Defendant Huawei Device Co. Ltd. (“Huawei China”)—also known as Huawei Device (Shenzhen) Co., Ltd—manufactures and sells numerous mobile device products that incorporate wireless communication technologies, including smartphone handsets and tablets.

**B. The Parties**

**[DFF4]** Plaintiffs Optis Wireless Technology, LLC (“Optis Wireless”), Optis Cellular Technology, LLC (“Optis Cellular”), and PanOptis Patent Management, LLC (collectively, “PanOptis”) are each limited liability companies organized and existing under the laws of the State of Delaware and maintain their respective principal places of business in Plano, Texas. Dkt. 31 ¶¶ 2–4.

**[DFF5]** Defendant Huawei Device USA, Inc. is a corporation organized under the laws of Texas, having its principal place of business in Plano, Texas. Dkt. 39 ¶ 6.

**[DFF6]** Defendant Huawei Device (Shenzhen) Co., Ltd. (together with Huawei Device USA, Inc., “Huawei”) is a corporation organized under the laws of China, having its principal place of business in Shenzhen, China. Dkt. 39 ¶ 7; Dkt. 239 at 1.

**1. Huawei’s Sales**

**[DFF7]** Over 60% of Huawei’s handsets are sold in China. 8-22 AM Sealed Trial Tr. 25:6–8 (Zhang).



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*See* Tr. 8/22 AM at 64:15-23. Huawei China is a Chinese corporation with its principal place of business at Bantian, Longgang District, Shenzhen, People's Republic of China. Dkt. 243 at 5.

**[PFF16]** Huawei's mobile device entities, including Huawei Device and Huawei China, together comprise the second largest cellular telephone company in the world. Tr. 8/23 PM (sealed) at 11:25-12:6.

**[DFF8]** Less than 1% of Huawei's handset sales occur in the United States. 8-22 AM Sealed Trial Tr. 25:9-11 (Zhang).

**[DFF9]** Between 2013 and 2016, Huawei had about \$180 million in sales of 2G mobile devices. 8-27 Bench Trial Tr. 152:18-154:9 (Akemann); PX 0975.

**[DFF10]** Huawei's corporate affiliates, such as Huawei Technologies Co., Ltd., sell a significant amount of infrastructure equipment around the world. 8-27 Bench Trial Tr. 66:22-25, 72:3-16 (Warren).

**[DFF11]** Huawei Technologies Co., Ltd. is the top 4G RAN infrastructure maker in the world. PX 0786 at 102 (¶ 488); 8-27 Bench Trial Tr. 72:3-16 (Warren).

**[DFF12]** Huawei licenses its standard essential LTE patents to other companies in the industry. 8-22 AM Trial Tr. 68:6-11. Huawei has also taken licenses to LTE patents from other companies in the industry, including Ericsson. 8-22 AM Trial Tr. 68:12-18.

**[DFF13]** PanOptis stated in its September 2017 offer that "[o]ur

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data indicates that Huawei has shipped more than 300 million devices since 2014 and combined with future sales of 100s million more devices *along with having a significant infrastructure sales.*" PX 0736 at 1 (emphasis added).

## **2. The Parties' Litigations in Germany and China**

**[DFF14]** In February 2017, PanOptis sued Huawei in the District Court of Mannheim in Germany, alleging infringement of two German patents alleged to be essential to LTE. Dkt. 88 at 1-2; Dkt. 88-7 ¶¶ 5-6. PanOptis later withdrew one of those patents, and Huawei is challenging the validity of the other patent in a separate proceeding before the German Federal Patent Court. Dkt. 88-7 ¶ 6.

**[DFF15]** In July 2017, Huawei filed two lawsuits against PanOptis in Shenzhen, China. In the first case, Huawei seeks a determination of the FRAND rate for PanOptis' Chinese wireless patents. In the second case, Huawei alleges that PanOptis has violated the Chinese Anti-Monopoly Law by (1) demanding unfairly high royalties for its Chinese patents, (2) bundling its Chinese patents with its global patent portfolio during the

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	<p>course of licensing discussions, and (3) treating Huawei less favorably than other similarly situated licensees. Dkt. 88 at 2-3; Dkt. 88-7 ¶¶ 11-12; Dkt. 88-8 ¶¶ 8-11. Huawei expects that the Chinese court will issue first-instance decisions in early 2019 and, if there is an appeal, second-instance decisions in 2020. Dkt. 88 at 3; Dkt. 88-8 ¶ 12.</p>
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**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****C. PanOptis' Portfolio Formation**

**[PFF17]** Plaintiffs Optis Wireless and Optis Cellular own portfolios of patents related to wireless communications. Tr. 8/20 PM at 77:17-24. Plaintiff PPM is an entity that possesses the rights to license those portfolios. *Id.*; *see also* Dkt. 243 at 5; Dkt. 274-1 (Joint Stipulations and Uncontested Facts Submitted to the Jury) at 1.

**[PFF18]** Optis Cellular was formed around a portfolio of patents originating from Ericsson and LG. Tr. 8/20 PM at 81:12-21; Tr. 8/27 at 24:18-25:4. The Optis Cellular portfolio includes at least 270 granted patents—including the '293 patent—and over 25 declared essential patent families. Tr. 8/22 AM (sealed) at 32:4-8; PX2073A.

**[PFF19]** Optis Wireless was formed around a portfolio of patents originating from Ericsson and Panasonic. Tr. 8/20 PM at 82:16-24; Tr. 8/27 at 24:18-25:4. The Optis Wireless portfolio includes at least 470 granted patents—including the '216, the '284, the '569, and the '238 patents—and over 47 declared essential patent families. Tr. 8/22 AM (sealed) at 32:16-20; PX2073A.

**C. PanOptis' Portfolio Formation**

**[DFF16]** PanOptis obtained its patent portfolios from Ericsson, Panasonic, and LG. 8-27 Bench Trial Tr. 24:18–25:6 (Warren). Ericsson, LG, and Panasonic are the predecessors-in-interest to the patents that make up the Optis Wireless and Optis Cellular portfolios. Dkt. 243 at 8.

**[DFF17]** Ericsson, to this day, has more standard essential patents than PanOptis does. 8-22 AM Trial Tr. 10:22–24 (Akemann).

**[DFF18]** PanOptis, and its predecessors-in-interest, have submitted IPR licensing declarations to ETSI which stipulate that the patent owner is prepared to grant licenses under its standard essential patents consistent with Clause 6.1 of the ETSI's IPR Policy. Dkt. 243 at 8.

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[PFF20] Ericsson, LG, and Panasonic are leading telecommunications manufacturers, and each contributes significantly to wireless communications research. *See* Tr. 8/20 PM at 80:8-81:21. Ericsson, LG, and Panasonic are members of ETSI, and each contributed significantly to the development of cellular standards like 3G and 4G LTE. *Id.*; *see also id.* at 120:11-17.

[PFF21] Ericsson, LG, and Panasonic are PanOptis' predecessors-in-interest to the patents in the Optis Cellular and Optis Wireless portfolios. Dkt. 274-1 at 34; *see also* Tr. 8/24 AM-PM at 54:5-14. In an effort to ensure a relatively higher quality of patent, the Optis Wireless and Optis Cellular portfolios are comprised of patents hand-picked from each predecessor-in-interest by other predecessors-in-interest. Tr. 8/27 at 53:24-54:16. That is, the Optis Cellular portfolio comprises "charted" and "chartable" Ericsson patents selected by LG, and "charted" and "chartable" LG patents selected by Ericsson. *Id.* The Optis Wireless portfolio comprises "charted" and "chartable" Ericsson patents selected by Panasonic, and "charted" and "chartable" Panasonic patents selected

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by Ericsson. *Id.* PanOptis also participated in the patent selection process, and, in fact, requested that certain patent families selected by the predecessors-in-interest be replaced by other, higher quality, patents. *See Id.*

**[PFF22]** “Chartered” or “chartable” patents are patents that have been or can be charted against a standard—i.e., patents that are or can be shown to be essential to a standard. Tr. 8/27 at 52:6-16. “Un-chartered” or “un-chartable” patents, on the other hand, are patents that, though declared essential to a standard, do not claim technology that was ultimately adopted into that standard. *Id.* Declared essential patents often fail to claim actually essential technology because, for example, standard essential declarations are anticipatory—i.e., they are submitted before the standard is fully formed by the standards body—and they are required for any technology that “may be or may become” essential. *Id.*; PX 0186 at § 6.4, pg. 45.

**[PFF23]** Together, the Optis Cellular and Optis Wireless portfolios include 87 patent families that have been declared-essential to the 4G

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LTE standard. Tr. 8/27 at 51:21-24.

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**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****D. PanOptis' Actually Essential Patents**

**[PFF24]** PanOptis contends that 54 patent families in its Optis Cellular and Optis Wireless portfolios—including the families of the four Infringed LTE Patents—are essential to the 4G LTE standards promulgated by ETSI and 3GPP. Tr. 8/27 51:21-52:5; *see also* PX 1057-1122. PanOptis contends that 11 patent families from its portfolios are essential to the 3G standards promulgated by ETSI and 3GPP. *Id.*; *see also* Tr. 8/27 at 91:22-92:4; *id.* at Tr. 8/27 at 134:13-135:7. And PanOptis further contends that another 3 patent families from its portfolios are essential to 2G standards. Tr. 8/27 at 91:22-92:4; *see also* Tr. 8/27 at 134:13-135:7.

**[PFF25]** 3GPP is a professional organization with hundreds of members, which develops and maintains cellular telecommunication standards, including 3G and 4G. Tr. 8/20 PM at 88:24-89:5; Tr. 8/20 PM at 119:2-6; Tr. 8/20 PM at 120:6-10.

**[PFF26]** Cellular standards are developed by numerous companies working together to develop a common standard for the industry. *See* Tr.

**D. PanOptis' Actually Essential Patents**

**[DFF19]** Not all of PanOptis' patents that have been declared as essential to wireless standards actually are essential to those standards. 8-27 Bench Trial Tr. 52:6-53:4 (Warren).

**[DFF20]** The evidence on PanOptis' actually standard essential patents ("ASEPs") come from two sources. First, PanOptis' experts Dr. Madisetti, Dr. Womack, and Dr. Gitlin opined that four asserted LTE patents, the '569, '284, '293, '216 Patents, are essential to LTE standards. 8-27 Bench Trial Tr. 133:12-15 (Akemann). Second, PanOptis' expert Dr. Haimovich and PanOptis' employee Mr. Warden opined that 50 unasserted patent families in PanOptis' portfolio are essential to LTE standards, 11 are essential to 3G standards, and 3 are essential to 2G standards, resulting in a total of 59 unasserted patents purportedly essential to wireless standards (some of which are alleged to be essential to multiple standards). 8-27 Bench Trial Tr. 88:1-3, 91:22-92:4 (Warren); *id.* at 121:18-24 (Haimovich); *id.* at 150:11-23 (Akemann); *see also* PX 2073A.



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8/20 PM at 119:11-18. Participating companies include Ericsson, LG, and Panasonic—companies from which PanOptis acquired the relevant patents—and Huawei. *See* Tr. 8/20 PM at 120:11-17. In order for proposed technology to be incorporated into the standard, it is reviewed by the standard participants before being ultimately approved by consensus of the engineers and voted into the standard. *See* Tr. 8/20 PM at 119:19-120:2; *see also* Tr. 8/21 PM at 80:17-24.

**[PFF27]** As part of that process, the standard can incorporate patented technology. *See* PX 0186 at §§ 4-9. To strike a balance between the goals of the standard and the rights of patent owners, ETSI requests that patent owners agree to license patents incorporated into the standard on FRAND terms and conditions. *Id.*

**[PFF28]** PanOptis owns patents declared essential to the 2G, 3G, and 4G standards. PX 2073A; PX 2074A; *see also* Tr. 8/27 at 40:12-42:13; Tr. 8/22 AM (sealed) at 14:19-15:4. PanOptis has licensed these patents to a number of industry participants, including ZTE, Kyocera, Samsung, Blackberry, Apple, and HTC. Tr. 8/20 PM at 92:5-12; Tr. 8/20

**[DFF21]** PanOptis claims that its purported ASEP families include patents from around the world, with all 63 families having patents in the U.S., 55 having patents in China, 42 in Europe, as well as many other jurisdictions. 8-27 Bench Trial Tr. 87:10–88:8 (Warden); PX 2074A.

**[DFF22]** No witness testified that PanOptis has any ASEPs that cover infrastructure.

**[DFF23]** PanOptis did not introduce any evidence comparing the claims of its Chinese patents to the wireless standards. Further, only 55 of the 63 PanOptis patent families that PanOptis claims are actually essential to wireless standards include patents in China. PX 2074A.

**1. PanOptis' Dropped the '851 and '833 Patents Before Trial, Which PanOptis Had Asserted as Essential.**

**[DFF24]** In the Third Amended Complaint, PanOptis asserted that the '833 Patent is essential to the LTE standard. Dkt. 31 ¶ 102. PanOptis alleged that the '833 Patent is essential to practicing the LTE standard sections set forth in 3GPP TS 36.212 and 36.211. Dkt. 31 ¶¶ 103-109.

**[DFF25]** 3GPP TS 36.212 V8.8.0 (2009-12) requires the channel

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PM (sealed) 5:6-20; PX 0787-0791, PX 0793.

**[PFF29]** Huawei also owns patents declared essential to wireless standards like 4G LTE, and it has an active licensing program including with respect to those patents. Tr. 8/22 AM at 68:2-8.; Tr. 8/20 PM at 109:2-110:11.

**[PFF30]** It is common practice in the industry to refer to patent families and organize patents into “families.” Tr. 8/27 at 132:4-20; Tr. 8/27 at 48:15-25; Tr. 8/27 at 96:9-18; Tr. 8/27 at 102:20-103:22; Tr. 8/27 at 105:2-106:5; Tr. 8/23 PM at 89:17-24 (Dr. Becker explaining that a patent family is a group of related patents filed in multiple jurisdictions). A patent family consists of the related patents—defined by a common patent specification and a common priority date—that arise because companies commonly file the same patent application in a number of countries. *Id.* PanOptis follows this practice, and its patents span over sixty countries. PX 2074A.

**[PFF31]** PanOptis’ portfolios include over 80 patent families declared essential to the 4G LTE standard, (Tr. 8/27 at 51:21-52:5), at

interleaver in LTE to “[w]rite the input vector sequence, for  $k = 0, 1, \dots$ ,  $H'-I$ , into the  $(R_{mux} \times C_{mux})$  matrix **by sets of  $Q_m$  rows** starting with the vector  $\underline{y}_0$  in column 0 and rows 0 to  $(Q_m - 1)$  and skipping the matrix entries that are already occupied.” PX 0067 at 33 (emphasis added). The same LTE technical specification provides that “ $Q_m$  is equal to 2 for QPSK, 4 for 16QAM and 6 for 64QAM.” *Id.* at 17.

**[DFF26]** On the other hand, the ’833 Patent requires that “the multiplexed signals are mapped from the first column of the first row to the last column of the first row, the first column of the second row to the last column of the second row, and so on, until all the multiplexed signals are mapped to the 2-dimensional resource matrix.” Dkt. 31-6 (U.S. Patent No. 8,102,833) at 9:16–21.

**[DFF27]** In other words, 3GPP TS 36.212 requires mapping signals to matrix by *sets of multiple ( $Q_m$ ) rows*, whereas the ’833 Patent requires mapping signals to matrix *one row at a time*. PX 0067 at 17, 33; Dkt. 31-6 at 9:16–21.

**[DFF28]** On August 15, 2018, PanOptis elected to not assert the

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least 11 patent families declared essential to the 3G standard, and at least 3 patent families declared essential to the 2G standard. PX 2073A.

**[PFF32]** Not all patents declared essential are essential, however, because parties declare any patent or patent application that “may be or may become” essential to the cellular telecommunications standards under ETSI’s rules. PX 0186 at § 6.4, pg. 45; Tr. 8/27 at 52:6-16. A patent is “essential” if “it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR.” PX 0186; Tr. 8/20 PM at 113:12-17.

**[PFF33]** To demonstrate essentiality, it is common practice in the industry to utilize “claim charts” which map the claims of a patent to the relevant sections of the standard, and demonstrate that the standard cannot be practiced without infringing the claim. Tr. 8/27 at 132:4-20; Tr. 8/27 at 48:15-25; Tr. 8/27 at 96:9-18; Tr. 8/27 at 102:20-103:22; Tr. 8/27

’833 Patent at trial. Dkt. 252. (Plaintiffs’ Notice of Election of Patent Claims for Trial).

**[DFF29]** In the Third Amended Complaint, PanOptis similarly asserted that the ’851 Patent is essential to the LTE standard. Dkt. 31 ¶ 71. However, following claim construction, PanOptis elected not to assert the ’851 Patent at trial. Dkt. 252.

**[DFF30]** On August 23, 2018, this Court granted Huawei’s judgment as a matter of law regarding the non-infringement of the ’851 patent and the ’833 patent. 8-23 PM Trial Tr. 175:15–17.

**[DFF31]** The ’851 and ’833 Patents, which were among the six patents PanOptis had earlier asserted to be essential to the LTE standard in its Third Amended Complaint, are in fact not essential. This suggests that, many of the 50 unasserted patent families that PanOptis claims are essential to 4G (LTE) standards actually are not standard essential. That inference is particularly appropriate, if one accepts, consistent with PanOptis’ counsel’s closing argument, that PanOptis asserted in this case the six declared-essential LTE patents it viewed as *most* likely to be

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at 105:2-106:5. It is common practice to utilize a representative patent (ordinarily English-language, such as a U.S. or European patent) to demonstrate the essentiality of the entire family. *Id.*

**[PFF34]** PanOptis' corporate representative testified that PanOptis has claim charted 70 families essential to the 4G LTE standard, (Tr. 8/27 at 51:25-52:1), at least 11 families essential to the 3G standard, and at least 3 families essential to the 2G standard. PX 1057-1122; PX 2073A.

**[PFF35]** At trial, PanOptis also presented uncontroverted expert testimony regarding the essentiality of a subset of its patent portfolio. Mr. James Warden, a PanOptis employee, provided expert testimony under Fed. R. Civ. P. 26(a)(2)(C) that 20 PanOptis patent families are essential to the 4G LTE standard, 11 PanOptis patent families are essential to the 3G standard, and 3 PanOptis patent families are essential to the 2G standard. Tr. 8/27 at 91:22-92:4. To support his opinion, Mr. Warden created claim charts and reviewed the patents and their file histories in detail. Tr. 8/27 at 91:1-15. Huawei did not challenge the qualifications of Mr. Warden to offer the opinions reflected in his report and testimony.

found valid, infringed, and essential. *See, e.g.*, 8-24 Trial Tr. 89:14-18 (“Now, common sense, right, does anyone really think that if we’re going to court against the No. 2 cell phone manufacturer in the world that we’re just going to pull out average patents for -- from our portfolio? No. We came to court with our good ones.”).

**2. Dr. Haimovich and Mr. Warden’s Essentiality Opinions**

**[DFF32]** PanOptis' expert Dr. Haimovich and PanOptis' employee Mr. James Warden purportedly analyzed certain patents in PanOptis' portfolio to determine the number of PanOptis' declared essential U.S. patent families that are actually essential to the 4G (LTE), 3G, and 2G cellular standards. 8-27 Bench Trial Tr. 86:24-87:9, 90:4-92:4 (Warden); *id.* at 119:7-121:24 (Haimovich); *see also* PX 2073A.

**[DFF33]** The opinions of Dr. Haimovich and Mr. Warden are cursory and do not provide adequate support for the essentiality assumptions of PanOptis' expert Dr. Akemann.

**[DFF34]** Among other things, neither Dr. Haimovich nor Mr.

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Tr. 8/27 at 117:20-24. Accordingly, the Court accepted Mr. Warden as an expert on the relevant subject-matter. Tr. 8/27 at 117:25-118:1.

**[PFF36]** Huawei provided no expert testimony addressing or disputing the mapping of these patents to the relevant standard sections. Tr. 8/27 at 93:5-19. And Huawei similarly provided no contrary opinion disputing Mr. Warden's ultimate opinion on the essentiality of the relevant patents. *Id.*

**[PFF37]** Dr. Alexander Haimovich, Distinguished Professor of Electrical and Computer Engineering at the New Jersey Institute of Technology, provided expert testimony that an additional 30 PanOptis patent families are essential to the 4G LTE standard. Tr. 8/27 at 109:21-110:3. To support his opinion, Dr. Haimovich created claim charts and reviewed the patents and their file histories in detail. Tr. 8/27 at 118:19-119:6. Huawei did not challenge the qualifications of Dr. Haimovich to offer the opinions reflected in his report and testimony. Tr. 8/27 at 117:20-24. Accordingly, the Court accepted Dr. Haimovich as an expert on the relevant subject-matter. Tr. 8/27 at 117:25-118:1.

Warden provided any analysis on the record of particular patents, claims, or claim terms. Further, while Mr. Warden testified that he himself analyzed 29 of the 63 patent families listed in PX 2073A and that 30 others were analyzed by Dr. Haimovich, neither witness explained which particular patents that witness himself analyzed and was opining on. 8-27 Bench Trial Tr. 86:24-87:9, 90:4-11, 103:23-104:22 (Warden); *id.* at 109:21-110:3, 119:7-121:24 (Haimovich); PX 2073A.

**[DFF35]** Instead, Dr. Haimovich and Mr. Warden merely explained the process they went through in preparing their reports and their associated claim charts (which are not in evidence), and then offered the conclusory opinion that the patents each one analyzed were actually essential to various wireless standards. 8-27 Bench Trial Tr. 91:1-92:7 (Warden); *id.* at 109:21-110:3, 119:7-121:24 (Haimovich).

**[DFF36]** With respect to the 29 patents that Mr. Warden opined on, Mr. Warden was unaware of any court that has adjudicated whether those patents are infringed by the practice of various wireless standards or whether those patents are valid in light of the prior art. 8-27 Bench Trial

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**[PFF38]** As with Mr. Warden, Huawei provided no expert testimony addressing or disputing Dr. Haimovich's mapping of these patents to the relevant sections of the LTE standard. Tr. 8/27 at 122:17-25. And Huawei again provided no contrary opinion disputing Dr. Haimovich's ultimate opinion on the essentiality of the relevant 30 patents to the 4G LTE standard. *Id.*

**[PFF39]** Together, PanOptis' experts Warden and Haimovich presented un rebutted expert testimony that 50 PanOptis patent families are essential to the 4G LTE standard, 11 PanOptis patent families are essential to the 3G standard, and 3 PanOptis patent families are essential to the 2G standard. Tr. 8/27 at 91:22-92:4; Tr. 8/27 at 109:21-110:3.

**[PFF40]** In addition to the un rebutted essentiality opinions by PanOptis' experts as to the 50 PanOptis patent families essential to the 4G LTE standard, PanOptis presented evidence at the jury trial that an additional four patents—i.e., the Infringed LTE Patents—are essential to the 4G LTE standard. Specifically, Dr. Vijay Madiseti testified that claim 1 of the '216 patent is essential to the 4G LTE standard. Tr. 8/21

Tr. 97:24–98:4 (Warden). Further, there is no evidence in the record that any of the 59 patents that Mr. Warden and Dr. Haimovich opined on have in fact been adjudicated by any court as valid or infringed by the various wireless standards.

**[DFF37]** This is despite Mr. Warden recognizing that in the *Unwired Planet* case, the UK court conducted a technical trial to determine whether the patents Unwired Planet asserted were essential actually were essential to the wireless standards and whether such patents were valid. 8-27 Bench Trial Tr. 97:13–20 (Warden); PX 0786 at 3 (¶ 2). In that trial, the UK court did in fact determine that one of the patents Unwired Planet had claimed to be essential actually was not in fact essential. 8-27 Bench Trial Tr. 97:21–23; PX 0786 at 3 (¶ 2).

**[DFF38]** Neither Mr. Warden nor Dr. Haimovich offered any opinions on whether the patents they analyzed are valid.

**[DFF39]** Mr. Warden did not review or offer any opinions on any non-U.S. patents in PanOptis' portfolio. 8-27 Bench Trial Tr. 97:6–9 (Warden). There is no evidence in the record that Dr. Haimovich

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AM 35:22-36:8. Dr. Rich Gitlin testified that the asserted claims of the '293 patent are essential to the 4G LTE standard. Tr. 8/21 PM 33:17-22.

And Dr. James Womack testified that the asserted claims of the '569 and '284 patents are essential to the 4G LTE standard. Tr. 8/21 PM 61:15-23.

**[PFF41]** PanOptis' infringement case for the Infringed LTE Patents was primarily based on 4G LTE standard specification documents. Tr. 8/21 AM 22:6-23:17. PanOptis could rely on these documents because Huawei admitted that the accused products implement each of the relevant sections of the 4G LTE standard. Tr. 8/21 AM 22:17-23:5; PX 2125. The jury found that Huawei's accused products infringe the Infringed LTE Patents, and in doing so, found that those four patents are essential to the LTE standard. *See* Tr. 8/27 (verdict) at 3:24-4:7.

**[PFF42]** In sum, unrebutted expert testimony from Mr. Warden and Dr. Haimovich, and further expert testimony from Dr. Madisetti, Dr. Gitlin, and Dr. Womack—together with the jury's verdict—supports PanOptis' contention that the Optis Cellular and Optis Wireless

reviewed or offered any opinion on any non-U.S. patents in PanOptis' portfolio. 8-27 Bench Trial Tr. 119:21–121:24 (Haimovich).

**[DFF40]** Mr. Warden did not provide any analyses of the prosecution histories. 8-27 Bench Trial Tr. 98:5–7 (Warden). Mr. Warden did not set forth any claim construction of any patent he analyzed, *id.* at 98:8–11, and Mr. Warden used the plain and ordinary meaning for each term in the patent claims even if in one or more of the patent specifications the inventor acted as his or her own lexicographer. *Id.* at 98:12–19. Mr. Warden did not take into account that the prosecution histories of the patents may or may not have contained a disclaimer of certain meanings of certain terms. *Id.* at 98:20–99:2. In his report, Mr. Warden did not set forth what he considered to be the level of ordinary skill in the art. *Id.* at 99:16–18. For certain means-plus-function claims in the patents, Mr. Warden did not identify the structures corresponding to the function in the claims when comparing the claims to the standards. *Id.* at 99:19–100:18.

**[DFF41]** Mr. Warden, an employee of PanOptis, testified that he is

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portfolios include 54 patent families essential to 4G LTE, 11 patent families essential to 3G, and 3 patent families essential to 2G.

**[PFF43]** Mr. Warden and Dr. Haimovich also each presented un rebutted expert testimony on their assessment of the relative value of the actually essential PanOptis patents they reviewed as compared to a set of essential patents from another, related portfolio and dispute, discussed in more detail below. Tr. 8/27 at 92:18-93:4; Tr. 8/27 at 121:25-122:16. Specifically, PanOptis' experts were asked to compare the technical value of the PanOptis patents to patents from three patent families, specifically EP2229744, EP2119287, and EP2485514, owned by an entity called Unwired Planet. *Id.* Mr. Warden concluded that "on average, the technical merit or value of" the 29 actually essential families he reviewed "were roughly equivalent to" the three essential Unwired Planet families. Tr. 8/27 at 93:1:4. Likewise, Dr. Haimovich concluded that the three Unwired Planet patents "are comparable" but "no more valuable than" the 30 PanOptis patents he analyzed and determined to be essential. Huawei did not provide any rebuttal or expert opinions in

"part of the patent prosecution team" whose job responsibilities include: "evaluat[ing] patent portfolios that are being offered for sale, potential acquisitions, determin[ing] the strength of those patents"; "[a]nd then for portfolios that we acquire, go[ing] through and categoriz[ing] the patent portfolios in terms of the technologies that it represents, determin[ing] whether any of those patents are standards essential"; "[and] then additionally prepar[ing] claim charts, supervis[ing] the preparation of claim charts, and also assist[ing] in licensing negotiations [ ]for the technical discussions." 8-27 Bench Trial Tr. 85:23–86:13 (Warden).

**[DFF42]** Mr. Warden, as a paid PanOptis employee, is not a disinterested expert witness. [REDACTED]

[REDACTED] 8-27 Bench Trial Tr. 100:21–102:5 (Warden). [REDACTED]

[REDACTED] *Id.* at 101:3–5. The essentiality analyses that Mr. Warden conducted in this case are part of his responsibilities as an employee of PanOptis. *Id.* at 101:10–15. PanOptis' financial performance will be affected by the outcome of this case. *Id.* at



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response to PanOptis' value analysis of its actually essential patents. Tr. 8/27 at 93:14-16; Tr. 8/27 at 122:17-25.

101:22–102:5.

**[DFF43]** Like Mr. Warden, PanOptis' expert Dr. Haimovich's essentiality analysis is also unreliable. Dr. Haimovich did not set forth any claim construction analyses. 8-27 Bench Trial Tr. 123:18–20 (Haimovich). In his own analysis (which he did not testify to on the record), Dr. Haimovich admitted that he used the plain and ordinary meaning for every claim term. *Id.* at 123:21–23. Dr. Haimovich did not provide any analysis of means-plus-function limitations, and could not even recall whether any of the analyzed claims had such limitations. *Id.* at 124:2–4.

### **3. PanOptis' Claim Charts**

**[DFF44]** PanOptis introduced into evidence a number of claim charts "that PanOptis uses in its various negotiations." 8-27 Bench Trial Tr. 51:3–16 (Warren); PX 1057–PX 1063; PX 1066–PX 1102; PX 1104–PX 1122. However, neither Mr. Warden nor Dr. Haimovich ever offered opinions on the accuracy or completeness of those PanOptis negotiation claim charts, indicated that the PanOptis negotiations claim charts

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supported their essentiality opinions, or indicated that they were involved in the preparation of the PanOptis negotiation claim charts. To the contrary, PanOptis' employee Mr. Warren testified that the PanOptis negotiation claim charts were "made and kept in the course of regularly conducted business." 8-27 Bench Trial Tr. 54:21–55:5. It is highly unlikely that Dr. Haimovich, an expert consultant, would be involved in the creation of charts "in the course of" PanOptis' "regularly conducted business." In short, the PanOptis negotiation claim charts that were introduced into evidence (PX 1057–PX 1063; PX 1066–PX 1102; PX 1104–PX 1122) do not illustrate the testimony or opinions of Mr. Warden and Dr. Haimovich.

**[DFF45]** Mr. Warden and Dr. Haimovich did testify about *other* claim charts that *they* created and that were appended to their reports, but those claim charts and those reports were not introduced into evidence. 8-27 Bench Trial Tr. 91:1–93:16, 102:20–104:22 (Warden), 120:16–121:24 (Haimovich).

**[DFF46]** The PanOptis negotiation claim charts that were

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introduced into evidence are not reliable evidence of essentiality. Like the testimony of Mr. Warden and Dr. Haimovich, the claim charts do not contain any analysis of patent validity, do not contain analysis of the prosecution histories, do not contain any analysis of means-plus-function terms, and do not consider any lexicography or disclaimer of claim terms. PX 1057–PX 1063; PX 1066–PX 1102; PX 1104–PX 1122.

**[DFF47]** Further, the PanOptis negotiations claim charts in evidence were prepared by interested witnesses (employees of PanOptis), not by third party experts. 8-27 Bench Trial Tr. 51:3–16, 54:21–55:5 (Warren). Mr. Ray Warren, who is the witness who testified as to the PanOptis internal claim charts, has not practiced in the field of electrical engineering that he studied, but instead has just practiced law. 8-20 PM Trial Tr. 76:14–18 (Warren). He did not discuss the technical aspects of the patents in suit, but left those to technical experts. *Id.* at 85:24–86:5 (Warren).

**[DFF48]** The PanOptis negotiation claim charts in evidence consist solely of excerpts from the various 3GPP standard documents mapped to

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each claim limitation, without any explanation of how the excerpt demonstrates the limitation is satisfied, and no annotations or highlighting. PX 1057–PX 1063; PX 1066–PX 1102; PX 1104–PX 1122.

**[DFF49]** The PanOptis negotiation claim charts in evidence have been produced as “HIGHLY CONFIDENTIAL – OUTSIDE ATTORNEYS’ EYES ONLY,” a designation that does not provide access to Huawei’s internal team. PX 1057–PX 1063; PX 1066–PX 1102; PX 1104–PX 1122.

**[DFF50]** As PanOptis’ witness Mr. Warren acknowledged, the existence of a claim chart by itself does not establish that a patent is essential to a standard. While PanOptis has charted 70 families against the LTE standard, it is only contending that 54 are actually standard essential. 8-27 Bench Trial Tr. 51:25–52:5. Mr. Warren explained that “there’s a couple of differences between having a chart and deciding that [a patent is] actually essential.” *Id.* at 52:20–22.

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****E. The Parties' Negotiations**

[PFF44] PanOptis first contacted Huawei regarding a potential license to PanOptis' standard essential patents in early 2014. Tr. 8/20 PM at 96:7-19; *see also* Tr. 8/22 AM at (sealed) 14:16-24. In May 2014, the parties entered into a non-disclosure agreement to govern those negotiations. Tr. 8/27 at 27:6-9. Over the course of the next several years, the parties met a number of times to discuss PanOptis' patents and Huawei's potential license. Tr. 8/20 PM at 96:7-19.

[PFF45] The parties first discussed a specific proposed licensing rate as early as June of 2014. Tr. 8/27 at 27:10-15. PanOptis presented Huawei with a proposed 0.8% (of net selling price) royalty rate for a worldwide license to its Optis Wireless and Optis Cellular portfolios. *Id.* The royalty rate offered by PanOptis for a license to the Optis Portfolios was below the rates deemed FRAND by PanOptis' predecessors-in-interest (Ericsson, Panasonic, and LG). Tr. 8/27 at 27:10-28:2. As part of the patent transfer to PanOptis, those parties mandated that PanOptis agree not to assert or otherwise license the 4G/LTE essential patents for a

**E. The Parties' Negotiations**

[DFF51] PanOptis and Huawei started their licensing discussion in April 2014. Dkt. 243 at 8; 8-20 PM Trial Tr. 96:7-9 (Warren).

[DFF52] PanOptis originally offered to license patents in the Optis Wireless and Optis Cellular portfolios to Huawei at a rate of 0.4% for each portfolio, for a combined rate of 0.8%. *See* PX 0671 at POHW\_00029649; 8-27 Bench Trial Tr. 27:10-15 (Warren) ("In June of 2014, we had given a presentation that – a general presentation. And in that presentation, it outlined that there was a 0.8 percent global royalty rate being offered.").

[DFF53] PanOptis used this rate to provide lump sum offers to Huawei, starting with an offer of \$15.2 million for a license covering the U.S. and certain Western European countries in July 2015. 8-27 Bench Trial Tr. 28:3-14 (Warren). PanOptis' offer increased to \$75 million in November 2015. *Id.* at 29:9-14 (Warren); *see* PX 0696.

[DFF54] PanOptis then provided a further revised offer for a running royalty license in September 2017. 8-22 AM Sealed Trial Tr.

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royalty rate over 0.5% of the net selling price for the Optis Wireless Portfolio or over 0.4% of the net selling price for the Optis Cellular Portfolio. *Id.* The royalty caps were calculated by those parties and included in the Master Sale Agreement as a condition of sale to ensure that PanOptis' offers to potential licensees comply with FRAND obligations arising from declarations to ETSI. *Id.* PanOptis' initial offer to Huawei for a license to the Optis Wireless and Optis Cellular portfolios for a 0.4% royalty rate each (or total of 0.8%) falls within what the sellers and PanOptis determined to be FRAND terms. *Id.* Subsequent to that proposal, the parties continued licensing negotiations and entered into technical discussions regarding the PanOptis patent portfolios and claim charts. Tr. 8/22 AM at (sealed) 15:14-25.

**[PFF46]** In July 2015, PanOptis presented Huawei with an official offer of \$15.2 million—for the Optis Wireless and Optis Cellular portions of the PanOptis portfolio—using the previously proposed 0.8% royalty rate. PX 0732; *see also* Tr. 8/27 at 28:3-8. The PanOptis offer was intended to cover Huawei's sales in the United States and Western

20:10–17 (Zhang). That offer improved upon PanOptis' opening offer of 0.8%, but has since been taken off the table by PanOptis in favor of a royalty structure that exceeds PanOptis' opening offer. 8-20 PM Trial Tr. 98:14–99:7 (Warren) (describing an offer totaling 0.9% for PanOptis' SEP portfolios). As PanOptis' corporate representative explained, the September 2017 offer is not “still on the table” and PanOptis is now asking for the maximum rate that PanOptis' agreement with Ericsson permits. *Id.*

**[DFF55]** Huawei sought clarification on several aspects of the PanOptis September 2017 offer, but PanOptis did not provide the requested information. 8-22 AM Sealed Trial Tr. 20:18–24, 21:17–22:16 (Zhang).

**[DFF56]** Huawei provided counterproposals to PanOptis in January 2018, 8-22 AM Sealed Trial Tr. 23:24–24:12, February 2018, *id.* at 24:18–21, and then again in April 2018, *id.* at 26:14–19.

**[DFF57]** As part of its counterproposals, Huawei presented an internal FRAND analysis of PanOptis' September 2017 offer based on

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Europe for a period of seven years. Tr. 8/27 at 28:9-14. PanOptis' intention was to reach agreement with Huawei on this first set of countries before further negotiating with respect to a license covering the remainder of the globe. Tr. 8/27 at 28:15-25.

**[PFF47]** In August 2015, Huawei affirmatively stated that PanOptis' offered "LTE rate [] is not FRAND," and countered with an offer of \$872,839, which reflected a proposed royalty rate of 0.048% for a license to both the Optis Wireless and Optis Cellular portfolios. DX 367; Tr. 8/27 at 29:1-8; PX 0732. The Huawei counter-offer was, like the PanOptis offer before it, intended to cover Huawei's sales in the United States and Western Europe for a period of seven years. Tr. 8/27 at 29:1-8; PX 0732. Huawei's proposed 0.048% rate amounted to only 6% of PanOptis' initial offer.<sup>1</sup>

**[PFF48]** Next, in November 2015, PanOptis presented Huawei with a \$75,000,000 license offer, again based on the 0.8% royalty rate,

information reasonably available to Huawei. DX 380. In that analysis, Huawei did not use 800 for the number of patent families actually essential to the LTE standard. DX 380 at 4; 8-27 Bench Trial Tr. 64:6-8 (Warren). Instead, Huawei used a much larger number, [REDACTED] DX 380 at 4; 8-27 Bench Trial Tr. 64:9-14 (Warren). Using this larger number in the denominator for the ratio of PanOptis deemed SEP families to total deemed SEP families, Huawei estimated a FRAND rate for the LTE PanOptis portfolios in the range of [REDACTED] [REDACTED] DX 380 at 4.

**[DFF58]** Huawei has indicated its willingness to accept a U.S.-only license. In June 2018, Huawei sent a letter to PanOptis indicating that it was willing to enter into a license to PanOptis' U.S. declared essential patents for a rate of 0.09%, its EU declared essential patents for 0.056%, and its China and Rest of the World declared essential patents for 0.04%. *See* DX 376 at 2. In the alternative, Huawei offered a \$35 million lump

<sup>1</sup> 0.048% / 0.8% = 0.06, or 6%.

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and again intended to cover Huawei's sales in the United States and Western Europe. Tr. 8/27 at 29:9-18. PanOptis' second offer differed from its first only in that it covered five years instead of seven, and in that it was based on a different set of Huawei sales data. Tr. 8/27 at 29:19-30:7. PanOptis' \$15.2 million offer was based on sales figures provided, but not certified, by Huawei. *Id.* PanOptis' \$75 million offer was based on sales figures provided by an outside consultant, who estimated Huawei's sales to be much higher than the numbers provided by Huawei during the parties' negotiations. *Id.*

[PFF49] In February 2016, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

sum payment. *Id.* In the June 2018 offer, Huawei proposed that "[s]ince the US proceeding is close to trial, we are open to having the US portfolio be agreed on first, if you would like to do that." DX 376 at 2. However, during the trial, PanOptis' corporate representative Ray Warren testified that PanOptis would not allow Huawei to take a U.S.-only license. 8-27 Bench Trial Tr. 74:12-23.

[DFF59] Huawei's offers were increasingly favorable to PanOptis, and Huawei ultimately offered to pay more than PanOptis had originally requested in its opening offer on a lump-sum basis in order to avoid further dispute. DX 376; 8-22 AM Sealed Trial Tr. 16:11-20, 25:12-29:25 (Zhang).

[DFF60] Without conceding that any patent in PanOptis' portfolio is valid, infringed, or essential or that any of PanOptis' offers, including the September 2017 offer, complies with FRAND, Huawei would be willing to accept, as a compromise, as the rate for PanOptis' U.S. patents, PanOptis' proposed 0.259% Major Market Rate for 4G End User Devices set forth in the September 2017 offer.



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[REDACTED]

[REDACTED]

[PFF50] During 2016, PanOptis acquired an entity called Unwired Planet, which was at that time involved in a number of litigations—including against Huawei in the United Kingdom. Tr. 8/27 at 30:22-31:6. The Unwired Planet dispute with Huawei concerned a FRAND license to a portfolio of standard essential patents. Tr. 8/27 at 31:7-32:5. The Unwired Planet action went to trial in October 2016 and the United Kingdom Court issued its decision in April of 2017. Tr. 8/27 at 33:2-6.

[PFF51] After the Unwired Planet decision issued in April 2017, Huawei proposed that the parties use the United Kingdom decision as a “very important benchmark” for considering what license rate is “fair and reasonable” for the Optis Wireless and Optis Cellular portfolios. Tr. 8/27 at 33:21-34:22; *see also* PX 0711.

[PFF52] In light of Huawei’s proposal, PanOptis’ Head of Licensing and corporate representative, Ray Warren, undertook a calculation to extrapolate the ruling from the United Kingdom Court on

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the Unwired Planet portfolio to determine appropriate rates for the essential patents in the Optis Wireless and Optis Cellular portfolios. Tr. 8/27 at 34:23-35:1. And based on this calculation, in September 2017, PanOptis presented Huawei with a new offer on the Optis Wireless and Optis Cellular portfolios. PX 0736. PanOptis' September 2017 offer included 4G LTE rates of 0.259%, 0.13%, 0.10%, and 3G rates of 0.077%, 0.039%, and 0.027%, for major markets, other markets, and China respectively. *Id.*; *see also* Tr. 8/27 at 38:7-48:5.

[PFF53] Despite initially proposing the methodology behind PanOptis' September 2017 offer, Huawei did not accept the offer and instead presented PanOptis with a series of counter-offers. Tr. 8/27 at 37:8-12. First, in January 2018, Huawei offered \$10 million for the

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United States and Western Europe, which reflected a total PanOptis portfolio rate of 0.05% in the United States and 0.03% in Europe.<sup>2</sup> PX 0737. Next, in February 2018, Huawei offered \$20.18 million for a license to the United States, Western Europe, and China. PX 0738. And finally, in June 2018—only two months before trial in the instant case—Huawei sent PanOptis an “open letter” and offered \$35 million to settle the dispute. DX 376. Huawei’s June 2018 offer reflected rates of 0.09%, 0.056%, and 0.04% in the United States, Europe, and China, respectively. DX 376.

[PFF54] PanOptis declined to accept any of Huawei’s counter-

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<sup>2</sup> Huawei’s (0.05%, 0.03%) rates for the \$10 million offer here are on average *less than* Huawei’s initial August 2015 offer of 0.048% for the same geographic regions. And yet that first offer, according to Huawei’s sales figures in 2015, amounted to only \$872,839 in royalties. DX 367; Tr. 8/27 at 29:1-8; PX 0732.

Huawei’s January 2018 offer, which uses a *lower average rate*, the same geographic scope, and amounts to a more than ***ten times higher*** royalty calculation, suggests that Huawei’s 2015 sales figures and projections were artificially low, and explains why PanOptis’ offer jumped from \$15.2 million to \$75 million after it began using independently determined sales data. Tr. 8/27 at 29:19-30:7.

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offers, and instead proposed that the parties settle their dispute through binding arbitration. Tr. 8/27 at 38:1-6. In response, Huawei—specifically its corporate representative, Emil Zhang—refused to agree to arbitrate. *Id.*; *see also* Tr. 8/27 at 62:23-63:17.

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****F. The Unwired Planet v. Huawei Litigation and Decision**

[PFF55] Unwired Planet is a PanOptis-affiliated company. Tr. 8/27 at 30:22-31:6. Like PanOptis, Unwired Planet owns a patent portfolio that includes patents that have been declared essential to various telecommunications standards (e.g., 2G, 3G, and 4G LTE). PX 0786 at ¶1. Like PanOptis' portfolio, much of the relevant portfolio was acquired from Ericsson. PX 0786 at ¶1. And like PanOptis, Unwired Planet's business is licensing its patents to companies who make and sell telecommunications equipment. PX 0786 at ¶1.

[PFF56] In 2014, Unwired Planet sued Huawei for patent infringement in the United Kingdom on six patents, five of which were alleged to be standard essential. PX 0786 at ¶1. Huawei raised defenses that centered on breach of the FRAND commitment, arguing that Unwired Planet's offers breached its contractual commitment to license its patent on FRAND terms and conditions. PX 0786 at ¶5.

[PFF57] The United Kingdom action culminated in a FRAND-related bench trial that spanned twenty days across October-December,

**F. The Unwired Planet v. Huawei Litigation and Decision**

[DFF61] In 2016, Huawei was engaged in litigation regarding FRAND compliance and licensing rates with Unwired Planet International Ltd. and Unwired Planet LLC ("Unwired Planet") in the United Kingdom. *See* PX 0786. That same year, PanOptis acquired Unwired Planet and its patent portfolio, which is different from the Optis Wireless and Optis Cellular portfolios at issue in this lawsuit. *See* 8-27 Bench Trial Tr. 30:22-31:6 (Warren). In April 2017, the UK court issued a judgment regarding FRAND compliance and licensing rates in the litigation between Huawei and Unwired Planet. PX 0786. This judgment is under appeal and the decision is not yet rendered. 8-27 Bench Trial Tr. 81:24-82:2 (Warren).

[DFF62] In the *Unwired Planet* litigation, Huawei proposed that, of the roughly 6000 patent families declared essential to LTE, 1812 should be deemed as actually essential. Unwired Planet, on the other hand, proposed that only 355 should be deemed as actually essential. PX 0786 ¶ 212. The UK court did not adopt either of these two numbers, and

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2016. PX 0786. In the FRAND trial, the Judge considered the following offers by Unwired Planet and Huawei:

	Unwired Planet Aug. 2016 (Global)	Unwired Planet Aug. 2016 (UK-only)
4G	0.13%	0.55%
2G/3G	0.065%	0.28%

	Huawei Aug. 2016 (UK-only)	Huawei Oct. 2016 (UK-only)
4G	0.04%	0.059%
3G	0.015%	0.046%
2G	0.00%	0.045%

PX 0786 at ¶¶11-14.

[PFF58] The court performed a comparable license analysis, considering several licenses to determine a benchmark rate for a license to the entirety of Ericsson's portfolio of essential patents. The court used this rate as a reference to adjudicate a so-called FRAND "benchmark rates" for Unwired Planet's portfolio, which was: 0.062% for 4G, 0.032% for 3G, and 0.064% for 2G. PX 0786 at ¶478. As can be seen, the benchmark rates ultimately arrived at by the court are far closer to the rates proposed by Huawei than those put forth by PanOptis.

instead deemed 800 patent families declared essential to LTE as actually essential. PX 0786 ¶ 377.

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[PFF59] After the *Unwired Planet* decision issued, Huawei told PanOptis that it believed PanOptis' offer needed to be adjusted in light of the benchmark rates from the United Kingdom. *See* PX 0711. Specifically, Huawei stated that the *Unwired Planet* decision "provided quite helpful information" for a FRAND license to the Optis Wireless and Optis Cellular portfolios, including, "for example, the effective royalty rate, the benchmark rate, and the potential Ericsson's portfolio rate." *Id.* Huawei further stated that the *Unwired Planet* decision "provides a very important benchmark and surely shall be taken into consideration when we consider what license is fair and reasonable." *Id.*

[PFF60] In response, PanOptis undertook to extrapolate the *Unwired Planet* decision to its portfolios before ultimately making the September 2017 offer at issue here and described in more detail below. *See* PX 0736; Tr. 8/27 at 38:7-48:5.

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****G. PanOptis' September 29, 2017 Offer**

[PFF61] PanOptis made an offer to Huawei on September 29, 2017 for the “remainder” essential patents in its portfolio—i.e., those essential patents licensable by PanOptis and not implicated by the *Unwired Planet* decision. Tr. 8/27 at 35:2-18; PX 0736. At the bench trial, PanOptis Head of Licensing and corporate representative, Ray Warren, explained exactly how PanOptis' offer was formulated based on the *Unwired Planet* decision and using the rates adjudicated in that case. Tr. 8/27 at 35:2-37:7.

[PFF62] Mr. Warren explained that PanOptis first took the number of PanOptis patent families declared essential and reduced it to a factor of 33% to arrive at a number of “deemed” essential patents in accordance with the *Unwired Planet* decision. Tr. 8/27 at 40:12-41:6. PanOptis selected this 33% factor to “stick[] to the process” of the *Unwired Planet* decision, where approximately 33% of the families reviewed were found by both sides to be essential. Tr. 8/27 at 43:6-13. PanOptis' application of the 33% factor to its own portfolio was meant to be conservative and to

**G. PanOptis' September 29, 2017 Offer****1. Negotiation Background**

[DFF63] On September 29, 2017, PanOptis provided a draft global license agreement to Huawei. PX 0736. The draft license agreement covers declared standard essential patents (SEPs) owned by PanOptis LLC or its subsidiaries that were not covered by any agreement relating to the *Unwired Planet* patents at issue in the UK litigation. *See id.* at POHW\_00033429, POHW\_00033433 (§ 1.13).

**2. The Terms of the September 2017 Offer**

[DFF64] In its September 2017 offer to Huawei, PanOptis revised the geographical scope and royalty rates for its SEP portfolios relative to its earlier offers. The September 2017 offer was a global offer. *See* PX 0736 at POHW\_00033435 (§ 1.21). It included proposed licensing rates by territory, including separate rates for “Major Markets,” “Other Markets,” and sales in China. *Id.* at POHW\_00033439 (§§ 4.2, 4.3). It also explicitly included rates for both mobile products (“End User Devices”) and infrastructure equipment for the 2G, 3G, and 4G



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arrive at rate numbers where “there would be no argument that this was [] FRAND.” *Id.* Applying the 33% factor to the number of declared 4G LTE patent families in the PanOptis portfolios, PanOptis arrived at 29 “deemed essential” 4G LTE patent families, which it then used to calculate a FRAND 4G LTE portfolio rate. Tr. 8/27 at 42:14-20.

**[PFF63]** The number (29) of deemed essential 4G LTE patent families that PanOptis used to derive its FRAND rate is significant for two reasons. First, Huawei itself has taken the position that PanOptis’ portfolios include 28 deemed essential patent families—so the parties are in near complete alignment on the numerator input to the FRAND rate calculation. DX 380 at 2; Tr. 8/27 at 42:21-43:5. Second, the number (29) used by PanOptis in its rate calculations is significantly less than the number (54) of *actually* essential patent families in the PanOptis portfolios as demonstrated by the trial record. Specifically, 50 PanOptis patent families were found to be actually essential by PanOptis’ experts Warden and Haimovich, whose opinions Huawei failed to even attempt to rebut. Tr. 8/27 at 91:22-92:4; Tr. 8/27 at 109:21-110:3. And 4 more

standards. *Id.* The rates proposed by PanOptis are below.

		4G	3G	2G
<b>End User Devices</b>	Major Markets	0.259%	0.077%	0.116%
	Other Markets	0.130%	0.039%	0.058%
	China	0.100%	0.027%	0.048%
<b>Infrastructure Equipment</b>	Major Markets	0.372%	0.062%	0.133%
	Other Markets	0.186%	0.031%	0.067%
	China	0.142%	0.022%	0.055%

**[DFF65]** “Major Markets” for 4G products included over 40 countries in North America, Europe, Africa, and the Middle East, as well as the United States. *See* PX 0736 at POHW\_00033436 (§ 1.27). The “Major Markets” rate was a single blended rate applicable to all of the listed countries. *Id.* at POHW\_00033439 (§§ 4.2, 4.3).

**[DFF66]** PanOptis’ September 2017 Offer 4G rates are based on a count of 800 total actual SEPs (“ASEPs”) for LTE. 8-27 Bench Trial Tr. 40:12–41:6, 63:18–23 (Warren).

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families (i.e., the Infringed LTE Patents' families) were found to be actually essential both by PanOptis' infringement experts and by the jury by virtue of its infringement findings. Tr. 8/21 AM 35:22-36:8; Tr. 8/21 PM 33:17-22; Tr. 8/21 PM 61:15-23; *see also* Dkt. 291.

**[PFF64]** Had PanOptis used the number of actually essential 4G LTE families supported by the record instead of the *Unwired Planet* decision's 33% proxy, its extrapolated 4G LTE FRAND rate and ultimate offer to Huawei would have been nearly doubled. Tr. 8/27 at 43:14-23.

**[PFF65]** Next, in addition to the 4G LTE numbers, PanOptis applied the 33% factor to its declared essential 3G and 2G patent families to arrive at a number of deemed essential 3G and 2G families in the portfolio. *See* Tr. 8/27 at 41:19-42:13. PanOptis then calculated its share of the industry aggregate for each of 4G LTE, 3G, and 2G, by taking the number of deemed essential patents and dividing by the industry aggregate numbers for those standards. Tr. 8/27 at 40:24-41:3, 41:19-25.

The relevant calculations are reproduced below:

**4G aggregate share:**  $87 \times 33\% / 800 = 3.589\%$

**3G aggregate share:**  $13 \times 33\% / 479 = 0.896\%$

**2G aggregate share:**  $11 \times 33\% / 154 = 2.357\%$

**[DFF67]** Huawei asked PanOptis to explain how the rates in PanOptis' September 2017 offer were calculated from the rates in the *Unwired Planet* decision, but PanOptis did not share with Huawei its method of calculation in its September 2017 Offer. 8-27 Bench Trial Tr. 60:3-23 (Warren).

**[DFF68]** The September 2017 offer does not state that any of its parts are divisible, separable, or segregable on the basis of technology, region, country, or type of product. *See* PX 0736. For example, the offer does not state that Huawei can accept only the rates for the end user devices but not the infrastructure equipment, or vice versa. *Id.* The offer does not include a rate that is specific solely to the United States. *Id.*

**3. PanOptis' September 2017 Offer to Huawei Proposed a Global License for Both End User Devices and Infrastructure Equipment That is Not Divisible by Region or Type of Devices.**

**[DFF69]** PanOptis' corporate representative, Ray Warren, repeatedly testified that the September 2017 offer is not separable or divisible by product type, technology, region, or country. 8-20 PM Sealed

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*Id.* As shown above, PanOptis' calculations include the same assumed total essential patent numbers as the court used in the *Unwired Planet* decision—i.e., 800 for 4G, 479 for 3G, and 154 for 2G. Tr. 8/27 at 40:24-41:3, 41:19-25.

[PFF66] PanOptis next calculated a weighted, or so-called “blended,” rate for 4G/3G/2G multimode devices, in accordance with the *Unwired Planet* decision. Tr. 8/27 at 42:1-10; *see also* PX 0786 at ¶¶220, 378. That is, like the court in the *Unwired Planet* decision, PanOptis applied a 70% factor to the 4G industry share rate, a 20% factor to the 3G industry share rate, and a 10% factor to the 2G industry share rate in order to arrive at PanOptis' blended share for 4G/3G/2G multimode devices. *Id.* This equation is based on the assumption that a “multi-mode” device receives 70% of its value from 4G functionality, 20% from 3G, and 10% from 2G. *Id.* PanOptis' calculation is reproduced below:

**4G/3G/2G Blended Share**

$$(3.589\% \times 0.7) + (0.896\% \times 0.2) + (2.357\% \times 0.1) = 2.927\%$$

*Id.*

Trial Tr. 31:16–19 (Warren) (PanOptis has never offered a license covering only PanOptis' U.S. patents); 8-27 Bench Trial Tr. 57:4–8 (Warren) (there is nothing in the offer that “says that Huawei can accept parts of those rates while not accepting other parts of those rates”); *id.* at 57:9–16 (Warren) (Huawei would need to accept the rates for both end user devices and infrastructure equipment); *id.* at 57:17–23 (Warren) (Huawei would need to accept all of the rates for 2G, 3G, and 4G); *id.* at 73:25–74:6 (Warren) (Huawei could not separately accept the offer of 0.259% for 4G End User Devices in major markets); *id.* at 57:24–58:3 (Warren) (Huawei would have to accept the rates for all of the regions, including a major markets region, a China region, and other markets region); *id.* at 74:7–11 (Warren) (Huawei could not separately accept the offer of 0.259% rate for 4G End User Devices in the U.S.); *id.* at 74:20–23 (Warren) (“[T]here is not, and has never been, any offer that PanOptis has made for only the United States patents.”); *id.* at 75:16–22 (Warren) (Huawei could not separately accept offers for China, major markets, and other markets); *id.* at 76:6–8 (Warren) (PanOptis would not separate 4G

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**[PFF67]** PanOptis similarly calculated a “blended” rate for 3G/2G multimode devices, again in accordance with the *Unwired Planet* decision. Tr. 8/27 at 44:11-45:21; *see also* PX 0786 at ¶¶220, 378. And like the court in the *Unwired Planet* decision, PanOptis applied a 67% factor to the 3G industry share rate and a 33% factor to the 2G industry share rate in order to arrive at a PanOptis’ blended share for 3G/2G multimode devices. *Id.* PanOptis’ calculation is reproduced below:

$$\begin{array}{c} \textbf{3G/2G Blended Share} \\ (0.896\% \times 0.67) + (2.357\% \times 0.33) = 1.378\% \end{array}$$

*Id.*

**[PFF68]** From there, PanOptis extrapolated to its 4G/3G/2G “major market” rate simply by multiplying the (court’s) *Unwired Planet* 4G/3G/2G FRAND benchmark rate (0.062%) by the ratio of the (calculated) PanOptis share of the 4G/3G/2G multi-mode aggregate over the (court’s) *Unwired Planet* share of the same multi-mode aggregate (0.700%). Tr. 8/27 at 38:12-20; PX 0786 ¶¶378, 478. PanOptis similarly extrapolated to its 3G/2G “major market” rate by multiplying the (court’s) *Unwired Planet* 3G/2G FRAND benchmark rate (0.032%) by

and 3G offers); *id.* at 79:21–25 (PanOptis never indicated to Huawei during negotiations that Huawei could take a single country license).

**[DFF70]** Mr. Warren specifically testified that it would not be “acceptable” to take a blended rate, such as the “Major Markets” rate in the September 2017 offer, and apply it to a single country like the United States, “one of our most substantial markets as far as where we have patents.” 8-27 Bench Trial Tr. 78:19–79:11. Mr. Warren testified that the United States has the strongest patent system in the world. 8-20 PM Trial Tr. 106:13–15.

**[DFF71]** PanOptis has not calculated how much Huawei would need to pay for U.S. patents under PanOptis’ proposal. 8-27 Bench Trial Tr. 62:11–15 (Warren).

**[DFF72]** On redirect examination, Mr. Warren attempted to retroactively and orally change the terms of the September 2017 offer by making the offer divisible between the infrastructure equipment part and the end user device part. 8-27 Bench Trial Tr. 71:5–72:2. PanOptis had never conveyed this to Huawei during the course of the parties’

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the ratio of the (calculated) PanOptis share of the 3G/2G multi-mode aggregate over the (court's) Unwired Planet share of the same multi-mode aggregate (0.570%). Tr. 8/27 at 44:11-24; PX 0786 ¶¶378, 478.

PanOptis' calculations are reproduced below:

$$\textbf{4G/3G/2G Major Market Rate}$$

$$0.062\% \times (2.927\% / 0.700\%) = 0.259\%$$

$$\textbf{3G/2G Major Market Rate}$$

$$0.032\% \times (1.378\% / 0.570\%) = 0.077\%$$

Tr. 8/27 at 38:12-20; Tr. 8/27 at 44:11-24; PX 0786 ¶¶378, 478.

[PFF69] The PanOptis 4G major market rate calculation, described in multiple steps above, can be shown in a single equation, reproduced below:<sup>3</sup>

negotiations. *Id.* at 76:19–77:17 (Warren).

[DFF73] PanOptis has represented to the Court that its offers to Huawei are global or blended in nature and *cannot* be unpacked to provide a U.S.-only rate. In its objection to Magistrate Judge Payne's recommendation regarding Huawei's motion to dismiss, PanOptis specifically argued that "there is no 'foreign part' of PanOptis' claim for a declaration of FRAND compliance, as its offer to Huawei was a global offer, with no U.S.-only rate, that cannot be accepted on a country-by-country basis." Dkt. 229 at 1; *see also id.* at 2 ("PanOptis made a single, integrated offer to Huawei to license it under PanOptis' global patent portfolio. PanOptis never made a U.S.-only offer to Huawei. So Huawei never had the ability to accept a U.S. part of PanOptis' offer, not just because there was never a U.S.-only part, but also because PanOptis

<sup>3</sup> Performance of this calculation, as written, yields a slightly higher result, 0.261%, than PanOptis' rate, 0.259%. This difference can be attributed to the conservative intermediate step rounding performed by PanOptis in its pre-offer calculations.

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$$0.062\% \times \frac{\frac{(87 \times 33\%) \times 70\%}{800} + \frac{(13 \times 33\%) \times 20\%}{479} + \frac{(11 \times 33\%) \times 10\%}{154}}{\frac{(6 \times 70\%)}{800} + \frac{(1 \times 20\%)}{479} + \frac{(2 \times 10\%)}{154}} = 0.259\%$$

See Tr. 8/27 at 35:2-45:21; PX 0786 ¶¶378. Of note here, the *Unwired Planet* court's assumed total essential patent numbers per standard—i.e., 800 for 4G, 479 for 3G, and 154 for 2G—are present in both the numerator and denominator of the PanOptis rate calculation. *Id.* Thus, while the respective numbers do not completely cancel each other out due to the complexity of the fraction, the selection of each standard's actually essential patent number (e.g., 800 for 4G LTE) has little impact on the end result of the equation since this same number is included in both the numerator and denominator. *Id.*; see also Tr. 8/27 at 64:6-65:1.

**[PFF70]** Next, PanOptis derived “other market” rates simply by dividing the “major market rates” by 2. Tr. 8/27 at 46:12-18. The *Unwired Planet* court took the same approach. PX 0786 ¶¶583-585. PanOptis' calculations are reproduced below:

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presented the global integrated licensing terms as a single package.”) (internal citations omitted). PanOptis went on to explain that “[t]he Court cannot simply pull out a US-only rate from the offers Huawei allege violate FRAND, as the implicit rate for US patents is bundled with the other rates in the offers,” calling a U.S.-only offer in that context “buried—and potentially obscured.” *Id.* at 5–6. PanOptis further argued that “[e]ven viewing the offer at the ‘category’ level ignores economic reality, as what a patentee would accept for one category may depend, in part, on what it can get for the others,” concluding “again” that “the question presented by PanOptis' claim is whether its global offer is FRAND, and the offer's components were never intended to be viewed in isolation.” *Id.* at 6.

**[DFF74]** PanOptis' counsel has also represented to the Court that PanOptis' offer is not divisible. 7-27 Pre-Trial Conf. Tr. 13:1–6 (“our offer, which was a global integrated offer, it was a[] *non-divisible* offer.”) (emphasis added); *id.* at 46:4–9 (“PanOptis made a financial offer, a running royalty offer to Huawei. That's the offer to be adjudicated. It's

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****4G/3G/2G Other Market Rate**

$$0.259\% / 2 = 0.13\%$$

**3G/2G Other Market Rate**

$$0.077\% / 2 = 0.039\%$$

Tr. 8/27 at 46:12-18.

[PFF71] Last, PanOptis calculated a China rate, again based on the methodology in the *Unwired Planet* decision. Tr. 8/27 at 46:19-47:18. And as the U.K. court had done, PanOptis derived a number of deemed essential China 4G and 3G patent families by multiplying the number of declared essential China patent families in its portfolios by the same 33% factor as before. *Id.*; PX 0786 ¶586. PanOptis then took that result, divided by the number of previously calculated benchmark families (e.g., 29), and multiplied that ratio by the “other market” rate. *Id.* PanOptis’ calculations are reproduced below.

**4G/3G/2G China Rate**

$$\frac{(67 \times 33\%)}{(29)} \times 0.130\% = 0.100\%$$

**3G/2G China Rate**

$$\frac{(9 \times 33\%)}{(4)} \times 0.039\% = 0.027\%$$

broken into three regions across the world. But that’s an *indivisible* offer. *It’s not an offer that can be accepted for a country.* It’s an offer that is a blended offer.”) (emphasis added); *id.* at 46:16–47:1 (“[Patent licenses for SEPs] usually establish a blended rate that just covers the whole world, and that covers countries where you have no or weak patent protection, as well as countries like the United States where you have strong patent protection. But you can’t go and cherry pick. You can’t say, well, I’m just going to take that to the United States, and then I’m not going to do anything else, or I’m just going to take that for another country. *It’s an integrated offer, an indivisible offer. That’s what we made here.*”) (emphasis added).

[DFF75] Although PanOptis has attempted in the middle of the bench trial to modify its offer to separate the proposed user equipment rates from the proposed infrastructure equipment rates, it has declined to do the same for any of its proposed regional rates. 8-27 Bench Trial Tr. 73:17–76:8 (Warren).

[DFF76] PanOptis’ economic expert Dr. Akemann testified that a

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Tr. 8/27 at 46:19-47:18.<sup>4</sup>

**[PFF72]** A summary table of the rates extrapolated by PanOptis from the *Unwired Planet* decision is reproduced below:

	Major Market	Other Market	China
4G/3G/2G	0.259%	0.130%	0.100%
3G/2G	0.077%	0.039%	0.027%

PX 0736.

**[PFF73]** On September 29, 2017, PanOptis made a license offer to Huawei for the “remainder” essential patents in its portfolio—i.e., those essential patents licensable by PanOptis and not implicated by the *Unwired Planet* decision—at the precise rates shown above. Tr. 8/27 at 35:2-18; PX 0736 at § 4.2. PanOptis’ offer is world-wide in scope (PX 0736 at § 1.21), has an eight-year term spanning from January 1, 2013 to December 31, 2020 (PX 0736 at §§ 1.4, 1.20), and defines “major

worldwide license rate would not be applicable to the U.S. alone. *See* 8-22 AM Trial Tr. 49:12–23 (arguing that PanOptis’ worldwide offer is not indicative of the U.S. rate for its SEPs). To get to a U.S. rate for the Asserted Patents, for example, Dr. Akemann testified that he would need to unpack the global rate into country-specific, patent-specific components, something “not easy to do.” *See id.* at 49:24–50:9. Dr. Akemann did not understand the September 2017 offer to contain a U.S.-only offer or rate. 8-27 Bench Trial Tr. 170:25–171:10.

**[DFF77]** Dr. Akemann was unable to testify as to what a U.S.-only offer would be based on the September 2017 Offer, and he offered no opinions as to whether there was FRAND compliance by PanOptis with respect to only U.S. patents—something he referred to as a “hypothetical offer.” *Id.* at 171:11–21; *see also id.* 171:7–10 (Akemann understands the offer to not include a U.S.-only offer or rate).

<sup>4</sup> Performance of these calculations, as written, yields slightly different results due to rounding in intermediate steps in PanOptis’s pre-offer calculations. Without rounding, the calculated China rate for 2G/3G would be 0.029%, instead of 0.027%, and 0.099%, instead of 0.100%.



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markets” to include over 40 countries, including the United States, Canada, France, Germany, and Japan (PX 0736 at § 1.27).

[PFF74] In addition to the 4G/3G/2G and 3G/2G rates shown above, PanOptis also performed a similar calculation for 2G in support of its September 2017 offer. Tr. 8/27 at 41:19-25. At the bench trial, PanOptis’ representative, Mr. Warren, did not testify in detail regarding the 2G rates. *See generally* Tr. 8/27 at 38:7-48:5. Instead, he explained that there are very few 2G-only devices on the market, that PanOptis does not license the 2G patent families separately, and that Huawei does not manufacture 2G-only devices. *See* Tr. 8/27 at 32:9-19; Tr. 8/27 at 78:1-18. Nevertheless, Mr. Warren explained that the 2G numbers were calculated in the same way as the 4G and 3G rates in order to conform to the *Unwired Planet* decision and to prepare PanOptis’ offer to Huawei. Tr. 8/27 at 41:19-42:13. The 2G rates are reproduced below:

	Major Market	Other Market	China
2G	0.116%	0.058%	0.048%

PX 0736.

**4. PanOptis Seeks An Advisory Opinion in Order to Help Guide its Licensing Program.**

[DFF78] In Count IX, PanOptis seeks “a ruling that it can rely upon in its existing licensing program with regard to Huawei and others. In the event that the Court finds PanOptis’ offer to Huawei exceeds what would be FRAND, it will allow PanOptis to modify its license offer consistent with the Court’s analysis.” Dkt. 279 at 2; 8-27 Sealed Bench Trial Tr. 12:8–14:2 (Warren). PanOptis’ Count IX seeks the Court’s advice on its offer to Huawei so it can decide whether to offer the same terms to numerous other parties who are not parties to this case. 8-27 Sealed Bench Trial Tr. 11:7–12:5 (Warren).

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[PFF75] During cross-examination of Dr. Michael Akemann, PanOptis' economic expert, Huawei elicited testimony regarding Huawei's sales of 2G devices. PX 0975; Tr. 8/27 at 153:3-11. However, Dr. Akemann explained that the document shown to him by Huawei's counsel was IDC data—i.e., estimates by a market research and data analysis company. Tr. 8/27 175:14-176:4. But this data, which showed estimates for Huawei's 2G sales, was contradicted by PX 2072, an exhibit on Huawei sales data from Dr. Akemann's report—which showed that Huawei has had and will have zero 2G sales for the period of 2017-2020. PX 2072, Tr. 8/27 at 176:2-7. Furthermore, even assuming that Huawei has had or will have relevant 2G-only sales, Dr. Akemann explained that these sales would comprise only a tiny fraction of Huawei's total sales. Tr. 8/27 at 176:8-177:1.

[PFF76] The September 29, 2017 offer also contained a set of rates for infrastructure material. PX 0736 § 4.3. Mr. Warren testified that PanOptis included these rates because of the structure in the *Unwired Planet* decision, but that the parties had at all times focused their

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negotiations on the mobile phone rates. Tr. 8/27 at 36:14-23; Tr. 8/27 at 80:1-8. Mr. Warren testified that PanOptis viewed the offer as segregable. Tr. 8/27 at 36:14-23 Huawei's own counteroffers and its claims of an alleged breach of FRAND centered entirely on the rates for mobile phones and ignored infrastructure. DX 367 ("Licensed Products: End User Products (such as phone, tablet, dongle, and wearable devices)"); DX 372 at 3-6; Tr. 8/22 AM (sealed) at 18:11-19:7; Tr. 8/23 PM (sealed) at 7:23-8:10 (testimony from Huawei's expert). And, indeed, Huawei's infrastructure-related entity, Huawei Technologies Co. Ltd. was dismissed from this action *by party agreement* precisely because infrastructure was not the focus of the parties' dispute. *See* Dkt. 42.

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**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****H. PanOptis' Comparable Licenses with Third Parties**

[PFF77] PanOptis has negotiated licenses with several other companies to all or part of its portfolio of essential patents. *See, e.g.*, PX 0788-90; Tr. 8/27 (sealed) at 4:7-7:13. Mr. Warren testified regarding these licenses during both the jury and bench trial. *Id.*

[PFF78] Mr. Warren explained that he had decades of experience negotiating licenses covering patents—specifically, standard essential patents. Tr. 8/27 at 23:25-24:11. He explained that it is common practice for the patent owner to provide claim charts for the other party to evaluate. Tr. 8/27 at 49:14-25. These technical discussions are common practice and ensure that the potential licensee is able to evaluate the patent owner's portfolio. Tr. 8/27 at 49:14-50:10. They are attended by engineers experienced in these areas, as well as patent attorneys. *Id.* at 50:4-14. Mr. Warren explained that the companies PanOptis negotiates with, for example, are involved in the standard-setting process at 3GPP, and so are very familiar with the relevant technology. *Id.* at 50:4-16.

[PFF79] Mr. Warren described PanOptis' license with Kyocera, PX 0790. Kyocera is a member of 3GPP, and a large cellular phone

**H. PanOptis' Comparable Licenses with Third Parties**

[DFF79] In forming his FRAND opinion, Dr. Akemann considered PanOptis' portfolio licenses with third parties as the “most probative” and “most instructive” factors. 8-27 Sealed Bench Trial Tr. 14:17–23, 15:5–8 (Akemann). [REDACTED] *Id.* at 15:5–8; PX 0790; PX 0788.

[DFF80] Huawei does not have access to the Kyocera and ZTE licenses because they are PanOptis' confidential business information. PX 0790; PX 0788. PanOptis represented that Samsung, HTC, ZTE, and Kyocera have obtained licenses to PanOptis' SEP portfolio and paid in the aggregate over \$100 million. 8-20 PM Trial Tr. 41:16–20 (Opening Statement).

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manufacturing company based in Japan. Tr. 8/27 at 50:15-16; Tr. 8/27 (sealed) at 4:15-5:1. Kyocera makes cell phones that utilize the Android operating system, and competes with Huawei. Tr. 8/27 (sealed) at 5:2-9.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[PFF80] Mr. Warren also described PanOptis' licenses with ZTE, PX 0788 and PX 0789. Tr. 8/27 (sealed) at 5:10-7:13. ZTE, like Kyocera and Huawei, is a member of 3GPP. Tr. 8/27 at 50:15-16. ZTE, like Huawei, is a Chinese company that makes and sells cell phones and wireless infrastructure equipment. Tr. 8/20 PM at 92:17-19. In 2016,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].

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[REDACTED]

[PFF81] In addition to fact testimony regarding these licenses, PanOptis presented a comparable license analysis conducted by damages

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expert Dr. Akemann. Tr. 8/27 (sealed) at 14:17-19:14. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[PFF82]

[REDACTED]

[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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**DEFENDANTS' PROPOSAL**

[REDACTED]

[PFF83]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Dr. Akemann thus determined that the comparison of the comparable license rates to the Huawei offer rates supports the conclusion that PanOptis' September 2017 offer is consistent with FRAND principles from an economic perspective. Tr. 8/27 (sealed) at 19:8-14.

[PFF84] Huawei did not cross-examine Dr. Akemann with respect to these third-party licenses. Huawei further did not provide any expert testimony that PanOptis' offer discriminated against Huawei in light of PanOptis' existing licenses, or that PanOptis' offer failed to comply with FRAND in light of PanOptis' existing licenses.

[PFF85] Dr. Akemann explained that the comparable licenses were probative of what PanOptis could charge as a FRAND rate to

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Huawei. Tr. 8/27 (sealed) at 31:18-32:9. He explained that these rates, [REDACTED] do not depend on the resolution of how many actually essential patents PanOptis has, because the analysis is a direct rate comparison. *Id.* at 32:15-33:7. Dr. Akemann explained that number of PanOptis actually essential patents is irrelevant to this comparison of the rates in these licenses to the rates offered to Huawei from an economic perspective. *Id.*

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****I. Effect of the Jury's Verdict**

**[PFF86]** After a week-long trial, the jury began deliberations regarding infringement, validity, willfulness, and damages. Tr. 8/24 AM-PM at 100:6-7.

**[PFF87]** Following several hours of deliberations spanning three days, on August 27, 2018, the jury returned its verdict. Dkt. 291; Tr. 8/27 (verdict) at 3:10-12. Among other findings, the jury found that Huawei infringed the asserted claims of the four Infringed LTE Patents (Tr. 8/27 (verdict) at 3:24-4:7), and found that those claims are not invalid (Tr. 8/27 (verdict) at 4:21-5:7). *See also* Dkt. 291.

**[PFF88]** As explained above, PanOptis' infringement experts testified that the Infringed LTE Patents are actually essential to the 4G LTE standard. Tr. 8/21 AM 35:22-36:8; Tr. 8/21 PM 33:17-22; Tr. 8/21 PM 61:15-23. PanOptis' infringement case for the Infringed LTE Patents was primarily based on 4G LTE standard specification documents. Tr. 8/21 AM 22:6-23:17. And PanOptis could rely on these documents because Huawei admitted the accused products implement each of the

**I. Effect of the Jury's Verdict**

**[DFF81]** The jury's verdict as to the '569, '284, '293 and '216 patents was not based on Dr. Akemann's FRAND analysis using the methodology of the *Unwired Planet* case, but was based on a separate analysis of the alleged throughput benefits of each patent relative to supposed non-infringing alternatives. 8-22 AM Trial Tr. 7:3-6, 53:15-17 (Akemann). The jury verdict therefore has no bearing on the issue of whether PanOptis' portfolio offer complies with FRAND under Count IX.

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relevant sections of the 4G LTE standard. Tr. 8/21 AM 22:17-23:5; PX 2125. Accordingly, when the jury found that the accused products infringe the asserted claims of the Infringed LTE Patents and that those claims are not invalid, the jury also found that all four of the PanOptis declared-essential patent families for which it saw evidence are actually essential to the LTE standard. *See* Tr. 8/27 (verdict) at 3:24-4:7.

**[PFF89]** In addition to the liability findings, the jury was instructed to award damages consistent with PanOptis' FRAND obligation, as follows:

A reasonable royalty must reflect that the '216, the '569, the '293, and the '284 patents have been declared to be essential to the cellular standards of the European Telecommunications Standards Institute, sometimes called ETSI, E-T-S-I.

Further, PanOptis committed to license the '216, the '569, the '293, and the '284 patents on fair, reasonable, and non-discriminatory, often called FRAND, F-R-A-N-D, terms. . . . [B]ecause of this FRAND commitment, I'll refer in my instructions at times to standard essential patents. By referring to standard essential patents, the Court is not instructing you that the asserted patents are actually essential to any standard. Again, it's up to you, the jury, to decide whether or not PanOptis

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has proven that the patents are standard essential and infringed.

Ericsson and Panasonic [], PanOptis's predecessors in interest with respect to the asserted patents -- submitted written commitments to ETSI covering the '216, the '569, the '293 patent, and the '284 patent in which they agreed to grant irrevocable licenses on fair, reasonable, and non-discriminatory, or FRAND, terms and conditions. Because Ericsson and Panasonic [] are predecessors in interest to PanOptis, PanOptis has the same FRAND obligations as Ericsson and Panasonic had when they submitted their written commitments to ETSI.

You must make sure that any reasonable royalty determination takes into account PanOptis's FRAND obligations as the Court has just explained them to you. A reasonable royalty in this case for the '216, '569, '293, and '284 patents cannot exceed the amount permitted under PanOptis's FRAND obligations. In determining what amount is a FRAND royalty, you may consider any evidence of patent hold-up and royalty stacking

...

For the '216, '569, '293, and '284 patents, which have a FRAND obligation to ETSI as part of the LTE standards, you must consider the following two factors:

(1) any royalty for the patented technology

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must be apportioned from the value of the standard as a whole; and.

(2) the FRAND royalty rate must be based on the incremental value that the patented technology adds to the product, not any value added by the standardization of that technology.

Tr. 8/24 AM-PM at 53:13-54:22, 58:8-16.

**[PFF90]** In consideration of the instructions above, and putting aside the '238 patent damages, the jury awarded PanOptis damages for Huawei's infringement of the declared-essential patents that amount to a total per unit rate of [REDACTED], as shown below:

- For the '293 patent, the jury awarded damages of \$246,844 (Tr. 8/27 (verdict) at 5:21-22), which reflects a [REDACTED] royalty. *See* Tr. 8/21 PM (sealed) at 14:4-8, 20:3-6.
- For the '216, the '284, and the '569 patents, the jury awarded damages of a total of \$2,589,880<sup>5</sup> (Tr. 8/27 (verdict) at 5:15-20), which reflects a [REDACTED] t royalty. *See* Tr. 8/21 PM (sealed) at 14:14-16, 20:12-19.

Dkt. 291.

<sup>5</sup> \$2,589,880 = \$102,742.00 + \$1,733,862.00 + \$753,276.00.

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[PFF91] The jury thus awarded the PanOptis what it deemed to be a reasonable, FRAND, royalty of [REDACTED] for Huawei's infringement of 4 actually essential PanOptis patents. The jury's [REDACTED] award works out to a rate of at least [REDACTED]%<sup>6</sup> of the average sales price of a Huawei device in this case. *See* Tr. 8/22 AM at 19:23-20:2, PX 2052 (showing average sales prices as between \$190 and \$198.1). The jury's rate—covering only the 4 patents—is greater than the “major market” rate offered by PanOptis to Huawei for a license to PanOptis' entire standard essential patent portfolio. Tr. 8/22 AM (sealed) at 7:5-12; PX 0736 at ¶1.13. In other words, the September 2017 offer's blended rate for a license in major markets—which includes the United States and most of the developed world—is less than the effective rate awarded by the jury, and yet it would include between seven (according to Huawei) and fifteen (according to the expert testimony presented by PanOptis) times as many actually essential patent families. *See id.*

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<sup>6</sup> [REDACTED].

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**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****J. PanOptis' Expert Testimony on FRAND Royalty Range****1. PanOptis' Expert Testimony on Royalty Rate as Compared to Ericsson's Rate as a Benchmark**

**[PFF92]** In addition to fact testimony describing how PanOptis utilized the *Unwired Planet* decision to prepare its offer to Huawei, PanOptis presented evidence through its expert Dr. Akemann. Dr. Akemann presented a FRAND analysis of PanOptis' offer, and determined that it fell within the range of rates that would be FRAND according to certain benchmarks. Tr. 8/27 (sealed) at 25:22-26:24.

**[PFF93]** As an initial matter, Dr. Becker, Huawei's expert, agreed that there is no prohibition against a global deal under the FRAND commitment. Tr. 8/23 PM at 97:1-7. Dr. Becker agreed that to determine whether a deal is FRAND, one would look at the terms and conditions, such as whether the rate was reasonable in light of the fact it is a global blended rate. *Id.* at 97:8-23 (including, "Q. But assuming the number is right, it's okay to offer a global deal, isn't it? A. Sure."). Dr. Becker presented no analysis one way or the other of whether the "number is

**J. PanOptis' Expert Testimony on FRAND Royalty Range****1. Assumption of 54 LTE ASEPs in PanOptis' Portfolio**

**[DFF82]** PanOptis asserts that it has somewhere around 83 to 87 patent families that have been declared essential to the LTE (4G) standard. 8-27 Bench Trial Tr. 51:21-24 (Warren); *id.* at 167:18-168:3 (Akemann). Of these 83-87 declared essential patent families, Dr. Akemann has assumed that 54 of them are actually essential to LTE. 8-27 Bench Trial Tr. 167:13-168:12 (Akemann); PX 2073A; PX 2077A. In other words, Dr. Akemann assumed that approximately 62-65% of PanOptis' declared LTE SEPs are actually essential. 8-27 Bench Trial Tr. 167:13-168:12. Dr. Akemann's assumption is unsupported. *See* Section I.D. above.

**[DFF83]** According to PA Consulting, only 34% of declared essential patents are actually essential. DX 100 at 29. 34% of the 83 to 87 PanOptis families declared essential to LTE is roughly 28-30 patent families. 8-27 Bench Trial Tr. 168:13-22 (Akemann). Dr. Akemann cited the PA Consulting report in his analyses. 8-22 AM Trial Tr. 9:22-10:3.

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right” in PanOptis’ global offer. However, the experts agree that global agreements are common in the industry, and that a global offer or deal can comply with a patent owner’s FRAND commitment. *Id.* at 97:1-23.

**[PFF94]** To evaluate PanOptis’ global offer, Dr. Akemann utilized various data points to construct a range of rates. *See* Tr. 8/27 at 130:10-25; Tr. 8/27 (sealed) at 27:10-28:9. In calculating this FRAND range, Dr. Akemann utilized various benchmark rates for Ericsson’s portfolio as a benchmark, [REDACTED] Tr. 8/27 (sealed) at 27:10-28:9, 29:20-30:20. Huawei also utilized Ericsson’s portfolio rate as a benchmark in negotiations, and provided corporate testimony that it believed PanOptis should use Ericsson’s portfolio rate in order to calculate a FRAND rate. *Id.* at 29:20-30:20, PX 2316.

**[PFF95]** Dr. Akemann performed his calculations with several different benchmarks for Ericsson’s portfolio rate. First, he used the multi-mode major market rate from the *Unwired Planet* decision. Tr. 8/27 at 130:10-25. In that case, J. Birss conducted a comparable license analysis to determine a benchmark rate for Ericsson’s 4G LTE, 3G, and

**[DFF84]** Dr. Akemann received the number of 54 LTE ASEPs in PanOptis’ portfolio from other PanOptis experts, including Dr. Madisetti, Dr. Womack, Dr. Gitlin, Dr. Haimovich, and Mr. Warden. 8-27 Bench Trial Tr. 133:12–15.

**[DFF85]** In addition to the ’216, ’293, ’569, and ’284 patents, asserted in this case, Dr. Akemann relied on Dr. Haimovich’s and Mr. Warden’s opinions on the essentiality of 50 other patent families in PanOptis’ portfolio, none of which are asserted in this case. 8-27 Bench Trial Tr. 150:11–23. Dr. Akemann did not give any instructions to Dr. Haimovich and Mr. Warden or tell them which patents to review. *Id.* Dr. Haimovich’s and Mr. Warden’s opinions on essentiality are cursory and do not provide adequate support for Dr. Akemann’s assumption. *See* Section I.D.2 above.

**[DFF86]** Dr. Akemann had earlier used a number of 55 LTE ASEPs in PanOptis’ portfolio. 8-27 Bench Trial Tr. 149:2–9, 149:17–25. Dr. Akemann changed the number 55 to 54 to take into account the fact that PanOptis dropped the ’833 Patent for trial. *Id.* *See* Section I.D.1 above.

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2G patent portfolios. *Id.* He determined that the Ericsson-Samsung (2014), Ericsson-Huawei (2009), Ericsson-Yulong (2013), Ericsson-ZTE (2011), and Ericsson-RIM (2010) licenses were the most comparable. PX 0786 at ¶¶414-55. From those inputs, J. Birss determined that the Ericsson portfolio rate was 0.80% for 4G LTE, and 0.67% for 2G and 3G. *Id.* at ¶475. And in this case, Dr. Akemann used these rates to calculate a FRAND range for PanOptis' portfolio. Tr. 8/27 at 130:10-131:15.

**[PFF96]** To utilize Ericsson's rate as a benchmark, Dr. Akemann had to multiply it by a ratio to account for the relative size of PanOptis' portfolio. Tr. 8/27 131:12-132:3. This ratio required two numbers: the number of "actually essential" PanOptis patent families and the number of "actually essential" Ericsson patent families. *Id.* at 131:12-133:5. For the PanOptis patents, Dr. Akemann relied on the Infringed LTE Patents, the testimony of Mr. Warden, and the testimony of Dr. Haimovich, which totaled at 54 actually essential 4G LTE patent families. *Id.* at 133:12-15. For the Ericsson patents, Dr. Akemann used the number J. Birss used in the *Unwired Planet* decision, 67 for 4G LTE. Tr. 8/27 133:6-11. Then,

**2. Calculation of FRAND Rates for PanOptis' Portfolio**

**a) Methodology**

**[DFF87]** In Exhibit 13c1 of his report, Dr. Akemann compared the Major Markets rates for End User Devices offered by PanOptis to Huawei in September 2017 to the FRAND rates as adjudicated or agreed upon in the *TCL v. Ericsson* case, the Ericsson-Huawei Agreement, and the *Unwired Planet* case. 8-27 Bench Trial Tr. 149:10-16, 154:18-156:6; PX 2075A.

**[DFF88]** In Exhibit 13c2 of his report, Dr. Akemann compared the China rates and Other Market rates for End User Devices offered by PanOptis to Huawei in September 2017 to the FRAND rates as adjudicated or agreed upon in the *TCL v. Ericsson* case, the Ericsson-Huawei Agreement, and the *Unwired Planet* case. 8-27 Bench Trial Tr. 157:22-158:7; PX 2076A.

**[DFF89]** In both Exhibits 13c1 and 13c2, Dr. Akemann took the following steps for his comparison.

**[DFF90]** First, Dr. Akemann assumed the number of actually

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Dr. Akemann explained that one can derive a predicted PanOptis rate by taking J. Birss' benchmark rate for Ericsson of 0.8% and multiplying it by the resulting "strength ratio" fraction—54 over 67, or 80.6%. *Id.* at 133:16 -23 (explaining that a simple calculation would result in a FRAND reference rate of 0.645% for PanOptis' 4G LTE rate).

**[PFF97]** Dr. Akemann explained that this was a simplified version of the calculation, using only the strength ratio for the 4G LTE patents. Tr. 8/27 at 133:24-134:8. He explained that a "more complete implementation" of the Court's methodology would require a multi-mode weighting, and that he also performed those calculations. *Id.* at 133:24-135:7. Dr. Akemann testified that he divided the number of PanOptis' actually essential families by the number of actually essential Ericsson families according to J. Birss for 4G LTE, 3G, and 2G, respectively. *Id.* at 134:23-135:7. Then, he multiplied these ratios by 0.7 for 4G LTE, 0.2 for 3G, and 0.1 for 2G, and summed them, to produce a multi-mode strength ratio totaling 63%. *Id.* at 134:19-135:7. This resulted in an estimated FRAND-compliant rate of 0.505% for PanOptis' 4G LTE major market rate, which Dr. Akemann testified was well above the

essential patents (ASEPs) in PanOptis' portfolio. 8-27 Bench Trial Tr. 157:22–158:7; PX 2075A; PX 2076A.

**[DFF91]** Second, Dr. Akemann listed four different estimates of Ericsson's actually essential patents (ASEPs) from the *Unwired Planet* case and the *TCL v. Ericsson* case. PX 2075A; PX 2076A. Dr. Akemann calculated an average of the four estimates. PX 2075A; PX 2076A.

**[DFF92]** Third, Dr. Akemann calculated the strength of PanOptis' portfolio by dividing the assumed number of PanOptis' SEPs by the estimated numbers of Ericsson's ASEPs, as adjusted by the multimode ratio. PX 2075A; PX 2076A.

**[DFF93]** Fourth, Dr. Akemann listed three FRAND rates for each of 2G, 3G, and 4G End User Devices from the *TCL v. Ericsson* case, the Ericsson-Huawei Agreement, and the *Unwired Planet* case. PX 2075A; PX 2076A.

**[DFF94]** Fifth, Dr. Akemann adjusted the three FRAND rates for each of 2G, 3G, and 4G End User Devices by the strength of PanOptis' portfolio and came to fifteen FRAND rates for each of 2G, 3G, and 4G End User Devices. PX 2075A; PX 2076A.

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0.259% in PanOptis' most recent offer. Tr. 8/27 at 135:8-13.

**[PFF98]** Dr. Akemann then testified that he incorporated a rest of world discount to compare those rates from PanOptis' offer. Tr. 8/27 at 135:14-18. He explained that he calculated a 55% PanOptis to Ericsson strength ratio in China, based on the geographical spread of PanOptis's claim charted 2G, 3G, and 4G LTE patent families as compared to the number of Ericsson actually essential patent families. Tr. 8/27 at 135:19-136:4. He then discounted by 50 percent, according to the method set forth by J. Birss, and arrived at a 4G LTE rate for China and other markets of 0.22%. *Id.* Dr. Akemann testified that this analysis compared favorably to PanOptis' offered 4G rates for those regions, which is 0.10% for China and 0.13% for what PanOptis defines as other markets. *Id.* at 136:5-9.

**[PFF99]** Dr. Akemann also testified that he checked these numbers using another rate for Ericsson's portfolio, the rate from the Huawei/Ericsson license agreement. Tr. 8/27 (sealed) at 31:18-32:9. Huawei and Ericsson have a cross-license agreement where Huawei pays Ericsson a percentage of the end sales price for sales of mobile devices

**b) End User Device 2G FRAND Rates**

**[DFF95]** In its September 2017 offer to Huawei, PanOptis offered 0.116% for 2G End User Devices in Major Markets. PX 0736 at POHW\_00033439 (§ 4.2.1). As shown in an excerpt of the table Exhibit 13c1 below, the 0.116% rate is higher than ten out of the fifteen corresponding FRAND rates (bolded) that Dr. Akemann calculated in Exhibit 13c1 of his report. 8-27 Bench Trial Tr. 156:10–157:21 (Akemann); PX 2075A. The 0.116% rate offered by PanOptis is (1) 11.5% higher than the 0.104% rate that Dr. Akemann calculated as an average for major markets under the “Unwired Planet: Major Market Multimode” method, 8-27 Bench Trial Tr. 156:22-157:5 (Akemann), and (2) 340% higher than the 0.026% rate that Dr. Akemann calculated as an average for major markets under the “TCL-Ericsson: U.S.” method. *Id.* at 157:12–15.

	<b>2G Rates</b>				
[F] FRAND Rates adjusted for Optis Portfolio Strength	<b>UP-C</b>	<b>UP-H</b>	<b>TE-E</b>	<b>TE-T</b>	<b>Ave</b>

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compliant with the 2G, 3G, and 4G standards. Tr. 8/27 (sealed) at 25:8-20. Dr. Akemann testified that Huawei itself pointed to the Huawei/Ericsson cross-license as a useful benchmark for the PanOptis portfolio rates. Tr. 8/27 (sealed) at 27:15-22. Using 54 for the number of PanOptis actually essential 4G LTE patent families, Dr. Akemann estimated a comparative 4G LTE rate of [REDACTED] for PanOptis, which he used as an additional data point in opining that PanOptis' rate fell within the FRAND range. Tr. 8/27 (sealed) at 32:7-9.

**[PFF100]** Dr. Akemann also testified on similar calculations with regard to 3G. He explained that while his methodology was the same, the inputs are different because the *Unwired Planet* benchmark rate for 3G is 0.67%. Tr. 8/27 at 136:13-137:2, PX 0786 at ¶475. Dr. Akemann calculated a multimode strength-ratio of 22%, by first calculating ratios of PanOptis actually essential patent families for 3G and 2G. Tr. 8/27 at 136:13-137:2. To account for multi-mode, Dr. Akemann multiplied the 3G ratio by 0.67 and the 2G ratio by 0.33, and summed them, resulting in the 22% ratio. *Id.* He testified that multiplying this by the 0.67% *Unwired Planet* benchmark rate, resulted in a 0.149% FRAND-compliant 3G

TCL-Ericsson: U.S.	0.023%	<b>0.015%</b>	<b>0.041%</b>	<b>0.041%</b>	<b>0.026%</b>
Ericsson-Huawei Agreement	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Unwired Planet: Major Market Multimode	<b>0.096%</b>	<b>0.063%</b>	0.168%	0.168%	<b>0.104%</b>

**[DFF96]** In its September 2017 offer to Huawei, PanOptis offered 0.058% for 2G End User Devices in Other Markets and 0.048% for 2G End User Devices in China. PX 0736 at POHW\_00033439 (§ 4.2.1). As shown in an excerpt of the table Exhibit 13c1 below, the 0.048% rate is higher than thirteen out of fifteen corresponding FRAND rates (bolded) that Dr. Akemann calculated in Exhibit 13c2 of his report. 8-27 Bench Trial Tr. 157:22–159:24 (Akemann); PX 2076A. The 0.048% rate offered by PanOptis is 37% higher than the 0.035% rate that Dr. Akemann calculated as an average for China market under the “Unwired Planet: Major Market Multimode” method. 8-27 Bench Trial Tr. 159:7–12 (Akemann). The 0.058% rate offered by PanOptis is 65.7% higher than the 0.035% rate that Dr. Akemann calculated as an average for other

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major markets rate. *Id.* at 136:25-137:2. This is higher than PanOptis' offered 3G major markets rate of 0.077%. *Id.*, PX 0736.

**[PFF101]** Dr. Akemann explained that he also adjusted this rate to incorporate a China and other markets rate. Tr. 8/27 137:3-5. To do that, he started with the reference Ericsson rate of 0.67%, and calculated a 16% strength ratio based on the geographical spread of PanOptis's claim charted 2G and 3G patent families as compared to the number of Ericsson actually essential patent families. *Id.* 137:6-14. He applied the 50% adjustment, and resulted in a FRAND-compliant 3G and other markets rate of 0.53%. *Id.* This is higher than PanOptis' offered China rate of 0.027% for 3G, and PanOptis' offered rate for other markets of 0.039% for 3G. *Id.*, PX 0736.

**[PFF102]** Dr. Akemann also testified that PanOptis' offered 2G rate was within the range of data points he concluded were FRAND. Tr. 8/27 at 177:8-11. Dr. Akemann testified regarding calculations on 2G rates during cross-examination, where he calculated a range of rates based on various inputs for the Ericsson benchmark rate and the number of Ericsson actually essential patents. Tr. 8/27 at 154:10-155:18. Dr.

markets under the "Unwired Planet: Major Market Multimode" method. *Id.* at 159:13-24.

	<b>2G Rates</b>				
[F] FRAND Rates adjusted for Optis Portfolio Strength	<b>UP-C</b>	<b>UP-H</b>	<b>TE-E</b>	<b>TE-T</b>	<b>Ave</b>
TCL-Ericsson: U.S.	<b>0.008%</b>	<b>0.005%</b>	<b>0.014%</b>	<b>0.014%</b>	<b>0.009%</b>
Ericsson-Huawei Agreement					
Unwired Planet: Major Market Multimode	<b>0.032%</b>	<b>0.021%</b>	0.056%	0.056%	<b>0.035%</b>

**c) Infrastructure Equipment FRAND Rates**

**[DFF97]** In its September 2017 offer to Huawei, for Major Markets, PanOptis offered 0.372% for 4G infrastructure equipment, 0.062% for 3G infrastructure equipment, and 0.133% for 2G infrastructure equipment. As shown in the excerpts of PX 2075B below, those rates are higher than the corresponding, highlighted FRAND rates that Dr. Akemann calculated for user equipment in Exhibit 13c1 of his report. 8-

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Akemann explained that he calculated a set of figures for 2G, some of which were above the offer rate, and some of which were below. *Id.* at 157:6-11, PX 2075A. Huawei attempted to elicit testimony that some of Dr. Akemann's numbers were far above PanOptis' offer, but Dr. Akemann explained that, in providing his opinions, he compared the range of values in the table, not specific numbers. Tr. 8/27 at 157:16-21. Dr. Akemann further explained that an offer at the top of the FRAND range would still be evidence showing an offer complied with FRAND. Tr. 8/27 at 172:15-173:8.

[PFF103] Based on these ranges, Dr. Akemann testified that PanOptis' current offer to Huawei fell inside of the range of rates that would comply with FRAND for a worldwide license to PanOptis' essential patents for mobile phones. Tr. 8/27 at 137:15-20. Because PanOptis offered rates that were lower than the rates that would be permissible to charge and be consistent with FRAND, Dr. Akemann testified that those rates are consistent with FRAND principles from an economic perspective. *Id.* at 137:21-138:1. Huawei provided no expert testimony in response, and did not elicit contrary testimony through

27 Bench Trial Tr. 161:24-163:16 (Akemann); PX 2075B. The 0.372% rate that PanOptis offered for 4G infrastructure equipment for Major Markets is higher than the 0.278% rate and the [REDACTED] rate, which Dr. Akemann calculated as average 4G rates for Major Markets under the "TCL-Ericsson: U.S." method and "Ericsson-Huawei Agreement" method, respectively. *Id.* at 162:2-8.

	4G Rates				
[F] FRAND Rates adjusted for Optis Portfolio Strength	UP-C	UP-H	TE-E	TE-T	Ave
TCL-Ericsson: U.S.	0.363%	0.241%	0.218%	0.348%	0.278%
Ericsson-Huawei Agreement	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Unwired Planet: Major Market Multimode	0.505%	0.335%	0.363%	0.542%	0.406%

	3G Rates				
[F] FRAND Rates adjusted for Optis Portfolio Strength	UP-C	UP-H	TE-E	TE-T	Ave



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cross-examination of Dr. Akemann or any of PanOptis' other witnesses.

**[PFF104]** On cross-examination, Huawei tried to elicit testimony that PanOptis' offer for infrastructure fell outside of the range of rates that would comply with FRAND for a worldwide license to PanOptis' essential patents, using Dr. Akemann's calculations. Tr. 8/27 160:4-161:9, 161:24-163:6, PX 2075B, PX 2076B. But as Dr. Akemann explained, Huawei's highlighted exhibits showed that even PanOptis' infrastructure rates fell within the range of rates Dr. Akemann calculated were FRAND. PX 2075B, PX 2076B, Tr. 173:22-174:10, 174:19-175:4.

**2. PanOptis' Expert Testimony on Royalty Rate in Light of the Industry Aggregate**

**[PFF105]** Dr. Akemann also provided testimony regarding the range of rates created for PanOptis' portfolio using a "top-down" approach as a check. Tr. 8/27 at 138:2-8. He testified that this calculation shows that PanOptis' offer to Huawei would not create any danger of royalty stacking, and instead implies a reasonable aggregate royalty rate across the industry. Tr. 8/27 at 142:12-21.

**[PFF106]** To perform this calculation, Dr. Akemann explained that

TCL-Ericsson: U.S.	0.079%	0.052%	0.134%	0.168%	0.088%
Ericsson-Huawei Agreement					
Unwired Planet: Major Market Multimode	0.149%	0.099%	0.255%	0.306%	0.166%

	2G Rates				
[F] FRAND Rates adjusted for Optis Portfolio Strength	UP-C	UP-H	TE-E	TE-T	Ave
TCL-Ericsson: U.S.	0.008%	0.005%	0.014%	0.014%	0.009%
Ericsson-Huawei Agreement					
Unwired Planet: Major Market Multimode	0.032%	0.021%	0.056%	0.056%	0.035%

**[DFF98]** In its September 2017 offer to Huawei, for China, PanOptis offered 0.142% for 4G infrastructure equipment, 0.022% for 3G infrastructure equipment, and 0.055% for 2G infrastructure equipment. As shown in the excerpts of PX 2076B below, those rates are

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he had to make an assumption regarding the total number of 4G patent families across the industry. Tr. 8/27 at 138:9-25. Several different numbers were discussed throughout trial, and both Dr. Akemann and Huawei's damages expert, Dr. Becker, demonstrated that the industry data provided a wide range of numbers. *See, e.g.*, DX 100, Tr. 8/23 PM at 66:3-17 (PA Consulting: 1,444); DX 099, Tr. 8/23 PM at 66:20-67:8 (Cyber Creative: about 3,300); *see also* Tr. 8/27 at 140:3-10; PX 2077A (showing various "Estimated Total 4G ASEPs" values, including 800, 1481, 1673, 1812, and 3037).

[PFF107] Next, this calculation required Dr. Akemann to make an assumption regarding the reasonable aggregate royalty for the standard. He explained that he used 10% as the industry-wide aggregate royalty for 4G LTE because there was Huawei deposition testimony that supported a rate of 10%. Tr. 8/27 at 141:7-142:21, PX 2315. Dr. Akemann explained that using the figure of 10% implies a reasonable aggregate royalty that an implementer like a handset company would have to pay for access to all of the 4G LTE essential patent families across the industry. Tr. 8/27 at 142:22-143:16.

higher than the corresponding, highlighted FRAND rates that Dr. Akemann calculated for user equipment in Exhibit 13c1 of his report and highlighted in exhibit PX 2076B. 8-27 Bench Trial Tr. 164:25–166:24 (Akemann); PX 2076B.

	<b>4G Rates</b>				
[F] FRAND Rates adjusted for Optis Portfolio Strength	<b>UP-C</b>	<b>UP-H</b>	<b>TE-E</b>	<b>TE-T</b>	<b>Ave</b>
TCL-Ericsson: U.S.	0.161%	0.107%	0.097%	0.155%	0.124%
Ericsson-Huawei Agreement					
Unwired Planet: Major Market Multimode	0.220%	0.146%	0.153%	0.232%	0.175%

	<b>3G Rates</b>				
[F] FRAND Rates adjusted for Optis Portfolio Strength	<b>UP-C</b>	<b>UP-H</b>	<b>TE-E</b>	<b>TE-T</b>	<b>Ave</b>
TCL-Ericsson:	0.079%	0.052%	0.134%	0.168%	0.088%

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[PFF108] To determine a rate for PanOptis' portfolio of 4G patents, Dr. Akemann multiplied the reasonable aggregate royalty rate by the share of total industry patents owned by PanOptis. Tr. 8/27 at 141:5-15. First, he divided 54 by the average of the various estimates he obtained for the denominators, which was 1761, and the number from the *Unwired Planet* case, 800. *Id.*, PX 2077A, Tr. 8/27 at 143:17-23. This resulted in PanOptis' 4G LTE rates of 0.307% to 0.675%, which Dr. Akemann testified shows that PanOptis' offer (0.259%) is consistent with FRAND principals. Tr. 8/27 at 142:18-21, 143:17-23.

[PFF109] Dr. Akemann noted that these results are fairly sensitive to the choice of denominator. *Id.* at 143:20-25. This is consistent with both Dr. Akemann and Dr. Becker's testimony that the total number of families, according to various industry studies, vary considerably. *See, e.g.*, DX 100, Tr. 8/23 PM at 66:3-17 (PA Consulting: 1,444); DX 099, Tr. 8/23 PM at 66:20-67:8 (Cyber Creative: 3,300); *see also* Tr. 8/27 at 140:3-10; PX 2077A. Other courts have criticized these studies, on account of the short amounts of time spent analyzing patents to determine essentiality. *See* Tr. 8/23 PM at 116:6-9, 117:6-21. Dr. Becker testified

U.S.					
Ericsson-Huawei Agreement					
Unwired Planet: Major Market Multimode	0.149%	0.099%	0.255%	0.306%	0.166%

	2G Rates				
[F] FRAND Rates adjusted for Optis Portfolio Strength	UP-C	UP-H	TE-E	TE-T	Ave
TCL-Ericsson: U.S.	0.008%	0.005%	0.014%	0.014%	0.009%
Ericsson-Huawei Agreement					
Unwired Planet: Major Market Multimode	0.032%	0.021%	0.056%	0.056%	0.035%

[DFF99] Dr. Akemann testified that he did not analyze the rates that PanOptis offered for infrastructure equipment in the September 2017 offer. 8-27 Bench Trial Tr. 160:10-12, 174:25-175:4.

### 3. Opinion on Aggregate LTE Royalty Burden

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that, while he relied on the PA Consulting study, for example, he did not know how long the patent reviewers spent, what their qualifications were, whether they examined the file histories, or what version of the 4G LTE standard they analyzed. *Id.* at 118:14-119:19; DX 0100. Dr. Becker also relied on a Cyber Creative study, which found over double the number of 4G LTE essential patent families as compared to PA Consulting. *Id.* at 119:20-120:7, 120:19-22. Dr. Becker likewise testified that he did not know why Cyber Creative gave preference to Japanese patents, how large the sample size was, what the qualifications of the reviewers were, or whether the sample size was statistically significant. *Id.* at 120:16-121:12. With this large variance in data, and lack of pertinent information, Dr. Akemann explained that it is difficult to conclude that any of Dr. Becker's cited studies are reliable metrics of the number of actually essential 4G patent families in the industry. *See* Tr. 8/27 at 138:21-140:16 (including, "there's significant uncertainty about these estimates"). The top-down analysis is therefore useful to ensure there is no royalty stacking problem, but an analysis subject to manipulation by variance of the numerator or denominator. *See* Tr. 8/27 at 140:3-10.

**and Effect on 4G User Equipment FRAND Rate**

**[DFF100]** In 2008, Huawei took the position that the accumulated royalty fee for all declared LTE SEPs should not exceed 10 percent. PX 2315 at 97:24-98:11. Huawei believes that the 10 percent number has decreased since 2008, due to an increase in the functions of mobile phones into areas that are not dependent on telecommunications technology. PX 2315 at 100:3-18. While Huawei does not have an official position as to the maximum accumulated LTE royalty fee, Huawei has applied a six to eight percent range in practice, with six percent being the more appropriate value. PX 2315 at 101:23-102:8.

**[DFF101]** Ericsson, the previous owner of some of PanOptis' purported LTE essential patents, stated that it believes that the "reasonable maximum aggregate royalty level" is "6-8% for handsets." DX 138; Dkt. 243 at 8 ("Ericsson, LG, and Panasonic are the predecessors-in-interest to the patents that make up the Optis Wireless and Optis Cellular portfolios.").

**[DFF102]** Dr. Akemann's reliance on the 10% aggregate royalty fee Huawei proposed in 2008 was erroneous and renders his top-down

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**[PFF110]** Huawei presented no evidence that PanOptis' rates would result in a royalty stacking problem. Huawei's expert, Dr. Becker, testified on royalty stacking only at a theoretical level. Tr. 8/23 PM at 69:7-70:4. He also testified based on a public third-party report that Huawei may need a license to over 1,400 4G patent families owned by 50 different companies. Tr. 8/23 PM at 65:13-17; Tr. 8/23 PM at 89:25-90:11. But Huawei's corporate representative testified that Huawei had entered into only about four to five 4G LTE licenses, and Dr. Becker agreed with that assessment. Tr. 8/23 PM at 90:12-21.

analysis unreliable. Dr. Akemann agreed that the functionality of mobile phones is currently greater than it was in 2008. 8-27 Bench Trial Tr. 146:7-10. Dr. Akemann did not consider a 6 percent rate as stated by Ericsson or Huawei in the analysis he testified to. *Id.* at 146:11-148:22.

**[DFF103]** Dr. Akemann admitted that using the 6% aggregate rate instead of a 10% aggregate rate would result in a 0.184% Major Market Rate for 4G End User Devices; the 0.259% 4G Major Market Rate proposed by PanOptis in its September 2017 offer is about 40% higher than 0.183%. *Id.* at 147:13-148:22.

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****II. CONCLUSIONS OF LAW****A. Burden of Proof**

[PCL1] PanOptis' Count IX is a declaratory judgment action that it has not breached its contractual commitment to license its essential patents on FRAND terms and conditions. PFF4. The parties agree that this is a contractual dispute. Dkt. 171 at 1 (Huawei stating, "[t]he parties agree that the FRAND dispute is a contract dispute, raised in this lawsuit over U.S. patents.").

[PCL2] The Supreme Court has "long considered the operation of the Declaratory Judgment Act to be only procedural, leaving substantive rights unchanged." *See Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 571 U.S. 191, 199 (2014) (internal quotations and citations omitted) (citing *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 240 (1937); *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500, 509 (1959)).

[PCL3] Thus, to determine the burden of proof in an action brought under the Declaratory Judgment Act, a court must look to the burden of proof in the underlying substantive claim. *Medtronic*, 571 U.S.

**II. CONCLUSIONS OF LAW****A. Burden of Proof**

[DCL1] "[A] party has the burden of proof on an issue when the facts with regard to the issue lie peculiarly within the knowledge of that party." *Carmona v. Sw. Airlines Co.*, 604 F.3d 848, 862 (5th Cir. 2010); *see also Smith v. United States*, 568 U.S. 106, 112 (2013) (citing *McCormick on Evidence* at 950 (Edward W. Cleary ed., 3 ed. 1984)); *Lindahl v. Office of Pers. Mgmt.*, 776 F.2d 276, 280 (Fed. Cir. 1985) (same); Jorge L. Contreras, *A Brief History of FRAND: Analyzing Current Debates in Standard Setting and Antitrust Through A Historical Lens*, 80 Antitrust L.J. 39, 88–89 (2015) (arguing that "the long history of placing the burden of proof of reasonableness [of royalty rates] on the patent holder, as established by courts, the DOJ, and private firms over the course of more than 25 years of patent licensing decrees" and the asymmetry of access to information critical to the reasonableness inquiry counsel in favor of placing the burden on patentee to show that their offered royalty rate is FRAND). *Cf. TCL Commc'ns Tech. Holdings Ltd.*

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at 198-199 (placing the burden of proof of proving infringement on the patentee in a licensee's declaratory judgment act for non-infringement) (citing *Raleigh v. Illinois Dept. of Revenue*, 530 U.S. 15, 20–21, (2000); *Director, Office of Workers' Compensation Programs v. Greenwich Collieries*, 512 U.S. 267, 271 (1994) (“the assignment of the burden of proof is a rule of substantive law”); *Garrett v. Moore–McCormack Co.*, 317 U.S. 239, 249 (1942) (“the burden of proof ... [is] part of the very substance of [the plaintiffs] claim and cannot be considered a mere incident of a form of procedure”)).

**[PCL4]** Under Texas law, the party asserting breach of contract bears the burden of proof. *Ideal Mut. Ins. Co. v. Last Days Evangelical Ass'n*, 783 F.2d 1234, 1240 (5th Cir. 1986); *Myrad Props., Inc. v. LaSalle Bank Nat'l Ass'n*, 252 S.W.3d 605, 625-26 (Tex. App. 2008, pet. filed). Unsurprisingly, other courts that have considered this issue vis-à-vis the contractual FRAND commitment have concluded that the party claiming breach has the burden of proof. *TCL Commc'ns Tech. Holdings Ltd. v. Telefonaktiebolaget LM Ericsson, et al.*, 2016 U.S. Dist. LEXIS

*v. Telefonaktiebolaget LM Ericsson*, No. SACV 14-00341-JVS, 2016 WL 7042085, at \*3 (C.D. Cal. Aug. 17, 2016) (offering no analysis for imposing the burden on the accused infringer TCL other than noting that “[t]here is no shared burden of proof;” TCL did not dispute that it bore the burden of proof and merely argued that the burden should be “shared”).

**[DCL2]** Much of the facts and evidence that pertain to Count IX are in PanOptis' exclusive possession and control. PanOptis has the greater knowledge regarding its patent portfolio, the value of its own patents, and the licensing history of its own patents. Therefore, PanOptis, rather than Huawei, is in the best position to prove that PanOptis' September 2017 offer complies with FRAND. For example, Dr. Akemann considered PanOptis' third-party licenses as the “most instructive” and “most probative” factors in forming his FRAND opinion. DFF79. But Huawei does not have access to those licenses. DFF80. Moreover, PanOptis did not share with Huawei its calculation methods for its September 2017 offer based on the *Unwired Planet* decision.

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101920, at \*10 (C.D. Cal. July 25, 2016) (“It is TCL’s burden to prove a breach of contract and prove that Ericsson’s offers are not FRAND.”)

**[PCL5]** As in *Medtronic v. Mirowski*, these legal principles mandate that the burden of proof to prove breach of contract should remain with Huawei in PanOptis’ declaratory judgment action. *Medtronic*, 571 U.S. 198-199; *see also Candela-Rios v. Sessions*, No. 17-50379, 2018 WL 2945887, at \*5 (5th Cir. June 11, 2018) (noting that the fact that an action is treated as being brought under the Declaratory Judgment Act is a “procedural distinction [that] makes no substantive difference to the assignment of the burden of proof”); *Collin Cty., Tex. v. Homeowners Ass’n for Values Essential to Neighborhoods (HAVEN)*, 716 F. Supp. 953, 968 (N.D. Tex. 1989), judgment vacated, cause dismissed on other grounds, 915 F.2d 167 (5th Cir. 1990) (“The court examines the substantive questions presented in order properly to place the burden of proof, despite the fact that this is a declaratory judgment action.”). Moreover, as in the case of a patent infringement case, practical considerations lead to the same conclusion— “[t]o shift the burden

DFF55, DFF67.

**[DCL3]** Because PanOptis is “the party with the best knowledge” of the facts essential to its claim for declaratory relief, it should bear the burden of proof. *Lindahl*, 776 F.2d at 280.



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depending upon the form of the action could create postlitigation uncertainty” about the scope of the contractual obligations and their effect, just as it would on the “scope of the patent” in *Medtronic*. 571 U.S. 199-200.

[PCL6] Courts have considered this very issue and reached the same conclusion. See *TCL Commc’ns Tech. Holdings Ltd. v. Telefonaktiebolaget LM Ericsson, et al.*, 2017 U.S. Dist. LEXIS 214003, at \*183 (C.D. Cal. Nov. 8, 2017) (“Just as it would on the breach of contract claim, TCL bears the burden of proof on its declaratory relief claim, as well as on Ericsson’s claim for declaratory relief.”); *Microsoft Corp. v. Motorola, Inc.*, 963 F. Supp. 2d 1176, 1189 (W.D. Wash. 2013) (rejecting argument that patent owner Motorola had breached its RAND assurance because the plaintiff and prospective licensee, “Microsoft[,] has failed to carry its burden on summary judgment that a specific action by Motorola . . . violated its duty of good faith” under its RAND assurance). The International Trade Commission has likewise noted that “[t]here is nothing in the ETSI agreement that would shift the burden of

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proof . . . .” and that it does not shift “simply because the [potential licensee] shout[s] ‘FRAND.’” Initial Determination on Remand, *In re Certain 3G Mobile Handsets and Components* (InterDigital v. Nokia), 337-TA-613, at 40 (Apr. 27, 2015); *see also Initial Determination, In re Certain Wireless Devices* (InterDigital v. Huawei), 337-TA-800, at 417-34 (June 28, 2013) (characterizing respondent’s arguments about breach of FRAND as an affirmative defense on which respondents bore the burden of proof).

[PCL7] Here, it is Huawei’s burden to prove that PanOptis failed to comply with its contractual obligations to ETSI.

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****B. Standing / Subject Matter Jurisdiction**

**[PCL8]** PanOptis' Count IX requests a declaratory judgment that PanOptis has not breached its contractual FRAND obligations. PFF4. This Court has supplemental jurisdiction over PanOptis' declaratory judgment claim, Count IX, under 28 U.S.C. § 1367(a), because it arises out of the same case or controversy as PanOptis' patent infringement claims. The parties do not dispute that these issues are related; indeed, Huawei previously asserted myriad affirmative defenses premised on PanOptis' breach of its contractual FRAND commitments. PFF11.

**[PCL9]** This Court previously dismissed Count IX as to foreign patents. Dkt. 246. PanOptis' declaratory judgment claim does not require the Court to adjudicate the infringement, validity, enforceability, or damages for foreign patents. *See Voda v. Cordis Corp.*, 476 F.3d 887 (Fed. Cir. 2007). Deciding this contractual dispute does not, nor could it, adjudicate the effect of this decision as to any of PanOptis' foreign patents—a matter for other courts, in accordance with their jurisdictional rules, to decide.

**B. Standing / Subject Matter Jurisdiction**

**[DCL4]** Article III Courts have jurisdiction to hear “Cases” and “Controversies.” *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 126–127 (2007). For a declaratory judgment claim to raise an Article III case or controversy, the dispute must “be ‘real and substantial’ and ‘admit of specific relief through a decree of a conclusive character, as distinguished from an opinion advising what the law would be upon a hypothetical state of facts.’” *Id.* at 127 (quoting *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 240–41 (1937)).

**[DCL5]** “To satisfy the ‘case’ or ‘controversy’ requirement of Article III, which is the ‘irreducible constitutional minimum’ of standing, a plaintiff must, generally speaking, demonstrate that he has suffered ‘injury in fact,’ that the injury is ‘fairly traceable’ to the actions of the defendant, and that the injury will likely be redressed by a favorable decision.” *Bennett v. Spear*, 520 U.S. 154, 162 (1997) (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992)).

**[DCL6]** PanOptis' request for declaratory judgment as to FRAND

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**[PCL10]** This adjudication would have, however, affected Huawei's affirmative defenses to U.S. patent infringement in this case. Since these defenses were dropped after the matter was submitted to the jury, this Court is left with the contractual dispute presented in Count IX, standing alone, rather than in connection with affirmative defenses to patent infringement.

**[PCL11]** Huawei contends that, since its affirmative defenses to patent infringement were dropped, this Court lacks subject matter jurisdiction over PanOptis' Count IX. Huawei contends that, while its affirmative defenses were admittedly premised on PanOptis' global offer (and required its adjudication), Count IX is, by this Court's order, limited to "U.S. patents" only, which Huawei interprets as requiring a contractual adjudication of a U.S.-only offer. Dkt. 280 (noting PanOptis presented no evidence of a "U.S.-only" offer).

**[PCL12]** Huawei misreads this Court's order, which nowhere states that the Court will only adjudicate a U.S.-only offer.

**[PCL13]** This Court, like others before it, has jurisdiction to

compliance must relate only to U.S. patents, as the Court has dismissed Count IX as to non-U.S. patents. Dkt. 214, 246.

**[DCL7]** However, PanOptis has never given Huawei an offer for U.S. patents only, and refuses to do so, despite Huawei's requests for a U.S.-only license offer and its offer to enter into one. DFF68–DFF71. Nor has PanOptis made an offer from which a rate for PanOptis' U.S. SEPs can be determined. To the contrary, PanOptis asserts that it is impossible to determine proposed U.S. patent rates from its September 2017 offer. DFF73–DFF77. PanOptis' Count IX, as it currently stands, therefore asks this Court to issue a declaration that addresses an entirely hypothetical issue and that cannot resolve the parties' actual dispute. *See Panavise Prods., Inc. v. Nat'l Prods., Inc.*, No. 08-cv-1300 ABC (JWJ), 2008 WL 11337707, at \*2 (C.D. Cal. May 30, 2008), *aff'd*, 306 F. App'x 570 (Fed. Cir. 2009). PanOptis has offered no explanation of how the Court can declare that PanOptis' worldwide, non-segregable offers pre-trial were in compliance with PanOptis' FRAND obligations with respect to U.S. patents when to date PanOptis has made no offer from which it

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adjudicate a global breach of contract claim, without implicating the infringement or validity of foreign patents. *See, e.g., Ericsson v. D-Link*, No. 6:10-cv-473, Dkt. 245, 2013 U.S. Dist. LEXIS 110585 (E.D. Tex. Aug. 6, 2013), *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823JLR, 2013 WL 2111217, at \*2 (W.D. Wash. Apr. 25); *TCL Communications Technology Holdings, Ltd. et al. v. Telefonaktiebolaget LM Ericsson et al.*, Case No. 8:14-cv-341-JVS, 2017 WL 6611635 (C.D. Cal. Dec. 21, 2017). U.S. courts also routinely adjudicate contracts requiring international performance outside of this context. *See, e.g., Stewart v. Screen Gems-Emi Music, Inc.*, 81 F. Supp. 3d 938 (N.D. Cal. Mar. 2, 2015) (adjudicating contract claim arising out of worldwide assignment); *Innovative Biodefense, Inc. v. VSP Techs., Inc.*, 2017 U.S. Dist. LEXIS 176077 (S.D.N.Y. Oct. 24, 2017) (adjudicating breach of contract claim arising out of international patent sublicense agreement); *Spectrum Creations, L.P. v. Carolyn Kinder Int'l, LLC*, 2008 U.S. Dist. LEXIS 10603 (W.D. Tex. Feb. 13, 2008) (adjudicating breach of contract claim arising out of worldwide licensing agreement). As the Ninth Circuit

contends a rate for its portfolio of U.S. SEPs can be derived.

**[DCL8]** The Declaratory Judgment Act is not a means “to obtain piecemeal adjudication of defenses that *would not finally and conclusively resolve* the underlying controversy.” *MedImmune*, 549 U.S. at 127 n.7 (emphasis in original); *see also Calderon v. Ashmus*, 523 U.S. 740, 747 (1998) (denying “attempt[] to gain a litigation advantage by obtaining an advance ruling on an affirmative defense”).

**[DCL9]** Even if PanOptis’ offer could be unpacked to determine a U.S.-only rate, a favorable decision on Count IX would not redress any injury to PanOptis. PanOptis sued Huawei for infringement of U.S. patents, and any injury it may have sustained on that score has been addressed in the jury trial. PanOptis has not alleged, and cannot allege, any separate unaddressed injury from the September 2017 global license offer it wants the Court to assess. Thus, PanOptis’ Count IX essentially requests a purely advisory opinion as to whether its worldwide, non-segregable offer complies with FRAND with respect to U.S. patents, an opinion that will redress no injury and resolve no actual dispute, so that

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explained, regarding the contractual RAND obligation, “[w]hen that contract is enforced by a U.S. court, the U.S. court is not enforcing [foreign] patent law but, rather, the private law of the contract between the parties.” *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 884 (9th Cir. 2012); *see also TCL v. Ericsson*, 2017 WL 6611635 at \*5; *Apple v. Samsung, Ltd.*, 920 F. Supp. 2d 1116, 1141-42 (N.D. Cal. 2013) (denying motion for a new trial, noting the jury considered testimony as to whether Samsung’s global portfolio offer met Samsung’s FRAND licensing obligations).

**[PCL14]** This Court will adjudicate Count IX as to U.S. patents only—meaning this Court will adjudicate the contractual dispute, and will not exceed its jurisdiction in deciding issues of foreign patent infringement, or by proclaiming what defenses may or may not be available in foreign patent infringement cases. Dkt. 246. As a part of adjudicating Count IX, this Court can, and must, evaluate PanOptis’ global offer to Huawei.

PanOptis may “modify its license offer consistent with the Court’s analysis” and “rely upon [the Court’s decision] in its existing licensing program with regard to Huawei and others.” Dkt. 279 at 2. DFF78. The Court’s determination on Count IX would not, and could not, require Huawei to accept that offer. *See Apple Inc. v. Telefonaktiebolaget LM Ericsson, Inc.*, No. 15-CV-00154-JD, 2015 WL 1802467, at \*2 (N.D. Cal. Apr. 20, 2015) (“[T]here exists no legal basis upon which Apple may be compelled to take a license for Ericsson’s patents on a portfolio-wide basis, as much as Ericsson may be able to point to business realities that make such an outcome unlikely, imprudent or uneconomical on Apple’s part.”). This is particularly the case given that the same licensing offer being litigated here includes royalty rates for sales in China, where Huawei does the majority of its business. DFF7–DFF8. Even if PanOptis’ offer were determined to be FRAND as to the U.S. patents, that does not mean that Huawei should or would accept an offer that may exceed a FRAND-rate as to patents in other jurisdictions, which are not at issue in this litigation. Huawei is willing to accept a U.S. license for the U.S. rate

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in PanOptis' September 2017 offer, but no such license has been offered. DFF60; DFF68–DFF70; DFF75. And PanOptis has explicitly stated that it will not offer a license to Huawei that is limited to the United States. DFF58; DFF74–DFF75. The only purpose of the determination as to U.S. patents requested under Count IX, therefore, would be “to alter the current negotiating power between the parties,” which is insufficient to confer standing on a declaratory judgment plaintiff. *See InterDigital Commc'ns, Inc. v. ZTE Corp.*, No. 1:13-CV-00009-RGA, 2014 WL 2206218, at \*3 (D. Del. May 28, 2014); *Apple Inc. v. Motorola Mobility, Inc.*, No. 11-CV-178-BBC, 2012 WL 7989412, at \*5 (W.D. Wis. Nov. 8, 2012) (“There is no guarantee that the parties will complete the negotiation and actually enter into a licensing agreement under which Apple will pay Motorola for the use of its technology. In these circumstances, I am not persuaded that the case should proceed.”).

**[DCL10]** Separately, even if the Court were to grant PanOptis its requested relief and declare its September 2017 offer FRAND as to U.S. patents, PanOptis may not even permit Huawei to accept such an offer, as

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PanOptis' corporate representative stated during the jury trial that the September 2017 offer is no longer available. DFF54.

**[DCL11]** The Court should therefore determine that PanOptis lacks standing and that no jurisdiction exists as to Count IX. In addition, even if jurisdiction existed, the Court should decline as a matter of discretion to issue a declaratory judgment on Count IX. *See Concise Oil & Gas P'ship v. La. Intrastate Gas Corp.*, 986 F.2d 1463, 1471 (5th Cir. 1993); *see also St. Paul Ins. Co. v. Trejo*, 39 F.3d 585, 590–91 (5th Cir. 1994) (listing judicial economy as one factor in determining discretionary exercise of declaratory judgment jurisdiction).



**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****C. PanOptis' FRAND Commitment**

[PCL15] ETSI is a standard setting organization based on Sofia Antipolis, France, organized under French law and responsible for the development of standards for various technologies, including wireless telecommunications technologies. Dkt. 286-1 (Expert Report of Bénédicte Fauvarque-Cosson) ¶16. ETSI's purpose and objectives are set out in the ETSI Directives, which include the ETSI Intellectual Property Rights (IPR) Policy. *Id.* ¶16, PX 0186. The ETSI IPR Policy recognizes IPR holders should be fairly and adequately rewarded for the use of their intellectual property, but also seeks to reduce the risk that standards-developing efforts might be wasted if essential IPRs are unavailable under FRAND terms and conditions. PX 0186 at Clause 3, Dkt. 286-1 at ¶17.

[PCL16] The ETSI IPR Policy requires members of ETSI to notify the organization of "ESSENTIAL IPRs," where ESSENTIAL is defined as "it is not possible on technical (not commercial) grounds, taking into account normal technical practice and the state of the art generally

**C. PanOptis' FRAND Commitment**

[DCL12] PanOptis, as a member of ETSI, is bound by the ETSI IPR Policy. Dkt. 286-1 at 9 (¶ 18).

[DCL13] The ETSI IPR Policy requires members to notify ETSI of "ESSENTIAL IPRs." *Id.* An "IPR," as defined by the ETSI IPR Policy, includes granted patents and patent applications. *Id.* An IPR is "ESSENTIAL" if "it is not possible on technical (not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use, or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a standard can only be implemented by technical solutions, all of which are infringement of IPRs, all such IPRs shall be considered ESSENTIAL." *Id.*

[DCL14] In accordance with the unambiguous language of § 6.1 in the ETSI IPR Policy, PanOptis is obligated to offer licenses to its

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available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use, or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL.” PFF32; PX 0186 at Clause 4, 15.6, Dkt. 286-1 ¶18. ETSI members may notify the organization of their IPRs that they believe are, or may become, ESSENTIAL using IPR licensing declaration forms found at Appendix A of the policy, and when submitting these declarations, the IPR owner states whether it is prepared to grant licenses under the declared IPRs, to the extent they are or become, and remain, essential, on FRAND terms and conditions. PFF27-PFF28; PX 0186 at Appendix A, Clause 6.1, Dkt. 286-1 at ¶19. This undertaking is known as the “FRAND Commitment.” Dkt. 286-1 at ¶19.

[PCL17] PanOptis’ FRAND commitment therefore arises out of its declarations to ETSI, which commit to license patents that may be or

declared SEPs on terms that are fair, reasonable, and non-discriminatory (“FRAND”). Dkt. 286-1 at 14 (¶ 29) & 36 (§ 6.1). This is known commonly as the “FRAND commitment.”

[DCL15] As Clause 12 of the ETSI IPR Policy states that it “shall be governed by the laws of France,” PanOptis’ FRAND commitment must be interpreted and construed pursuant to French law. Dkt. 286-1 at 10 (¶ 20) & 41 (§ 12).

[DCL16] But “the national courts of law have the sole authority to resolve IPR disputes.” Dkt. 286-1 at 64 (“ETSI Guide on IPRs”), § 4.3.

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may become essential to a cellular telecommunications standard on FRAND terms and conditions. PFF10-PFF11; PFF-32; Dkt. 286-1 at ¶19; PX 0186 at Appendix A, Clause 6.1 These Intellectual Property Rights (“IPR”) licensing declarations state that “[t]he construction, validity and performance of this IPR information statement and licensing declaration shall be governed by the laws of France.” PX 0186 at Appendix A, Dkt. 286-1 ¶20. The FRAND commitment must be therefore interpreted, and its performance evaluated, pursuant to French law. Dkt. 286-1 ¶20, *TCL Commc'n Tech. Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson*, No. CV 15-2370 JVS(DFMX), 2017 WL 6611635, at \*5 (C.D. Cal. Dec. 21, 2017), *Apple, Inc. v. Motorola Mobility, Inc.*, 886 F. Supp. 2d 1061, 1081-1082 (W.D. Wis. 2012).

[PCL18] French contract law includes the fundamental principle that contracts “must be performed in good faith,” and that applies to the contractual FRAND commitment created between ETSI and patent holders. Dkt. 286-1 at ¶¶26-28. In the context of FRAND licensing, French law compels both the patent owner and the prospective licensee to

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negotiate in good faith towards a license. *Id.* ¶28.

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**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****D. Huawei's Third-Party Beneficiary Rights**

[PCL19] PanOptis' declarations form a contract that includes the obligation to license on FRAND terms and conditions. Dkt. 286-1 at ¶24, *TCL v. Ericsson*, 2017 WL 6611635 at \*5. Under French law, Huawei is entitled to enforce this contract through the doctrine of *stipulation pour autrui*, or stipulation on behalf of a third party. Dkt. 286-1 at ¶¶20-25. When an IPR owner, such as PanOptis, makes a FRAND commitment, the right acquired by prospective licensees, such as Huawei, is the right to require that the IPR owner be prepared to grant licenses on FRAND terms and conditions in accordance with Clause 6.1 of the ETSI IPR Policy. Dkt. 286-1 at ¶25. This doctrine is similar to that of a third-party beneficiary right under common law. *TCL v. Ericsson*, 2017 WL 6611635 at \*5. ETSI is the promisee, the owner of a SEP who submits the IPR licensing declaration is the promisor, and the third-party beneficiaries are prospective licensees who benefit from the stipulation. Dkt. 286-1 at ¶24.

**D. Huawei's Third-Party Beneficiary Rights**

[DCL17] Huawei is a third-party beneficiary of PanOptis' FRAND commitment. Dkt. 286-1 at 11–12 (¶¶ 21–25).

**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****E. PanOptis' Compliance with its Contractual Commitments****1. PanOptis' Offer And Course of Conduct Was In Good Faith**

[PCL20] On September 29, 2017, PanOptis offered a global license to its portfolio of standard-essential patents to Huawei. PFF61-PFF76. PanOptis presented uncontroverted testimony that its offer was based on the U.K. court's adjudication in *Unwired Planet v. Huawei*. PFF61. PanOptis also present uncontroverted expert testimony that its offer was commensurate with (or lower than) the rates paid by competitors of Huawei, indicating the offer was a reasonable estimate of the value of PanOptis' technology and not discriminatory. PFF92-PFF104. Both parties presented extensive evidence on the back-and-forth in negotiations. PFF44-PFF54. PanOptis' offer was made in good faith, and PanOptis complied with its obligation to negotiate in good faith towards a FRAND license in making this offer. PanOptis did not breach its FRAND obligation by not further lowering its offer, which was based on conservative estimates of PanOptis' patent value. PFF62.

**E. PanOptis' Compliance with its Contractual Commitments**

[DCL18] PanOptis stated in its letter to this Court that "[it] will establish that its currently-live September 29, 2017 offer of a global license to Huawei, as set forth in PX 0736, satisfies its obligations under the FRAND contract." Dkt. 279 at 1. This is despite PanOptis corporate representative testifying earlier during the jury trial that the September 29, 2017 offer is in fact, no longer live. DFF54. "PanOptis seeks a declaration that it has not breached the FRAND contract." Dkt. 279 at 1. "The relief [sought by PanOptis] is solely prospective and there will be no demand for an award of damages or past-due royalties." *Id.*

**1. PanOptis Insists Upon an Indivisible, Global Offer Even Though It Has Sued Huawei on U.S. Patents.****a) PanOptis' Offer Is Indivisible.**

[DCL19] As PanOptis and its expert repeatedly represented, the September 2017 offer is indivisible as to geography. Huawei is not free to accept any of its regional royalty rates and reject other regional royalty

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**[PCL21]** Huawei did not present evidence at the FRAND trial, or otherwise, that PanOptis' offer was not made in good faith. Nor did Huawei present evidence that PanOptis breached its obligation to negotiate in good faith or that PanOptis' course of negotiation conduct was anything but fair and reasonable. On the contrary, the evidence shows that PanOptis negotiated in good faith. PanOptis opened licensing negotiations in early 2014 with introductory letter correspondence that informed Huawei as to the existence of the relevant portfolios. PFF44. From there, the parties opened licensing discussions. *Id.* PanOptis' initial offers to Huawei were at licensing rates below the rates deemed FRAND by PanOptis' predecessors-in-interest, Ericsson, LG, and Panasonic. PFF45. And PanOptis continued to meet with Huawei repeatedly during the period those offers went unaccepted and waited nearly three years from opening negotiations before filing the instant lawsuit. PFF44-PFF54; Dkt. 1.

**[PCL22]** Furthermore, with respect to Huawei's statements that PanOptis' initial offers themselves were not FRAND (PFF11; DX 367;

rates. Huawei is not free to accept the rates for U.S. patents only. DFF69–DFF70; DFF73–DFF74; DFF76–DFF77.

**[DCL20]** The September 2017 offer is also indivisible in other respects. Huawei is not free to accept the 3G or 4G rates separately from each other. The written offer at issue does not allow Huawei to accept the rates only for end user devices but not for infrastructure equipment, or vice versa. DFF69.

**[DCL21]** PanOptis cannot retroactively orally amend the terms of the September 2017 offer by making the offer divisible between the end user device part and the infrastructure equipment part. DFF72. First, PanOptis' request for a declaratory judgment asks the Court to evaluate the offer it made in September 2017, not an "offer" created by a witness while testifying during the bench trial. No question concerning any such offer is presented by the pleadings in this case. *See Kingdomware Techs., Inc. v. United States*, 136 S. Ct. 1969, 1975 (2016) (declaratory relief claim must relate to an "actual controversy" between the parties existing at the time the complaint is filed). When the complaint and pretrial order

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DX 372), the FRAND commitment does not require that each offer and counter-offer exchanged during the course of negotiations be at a FRAND rate. *Unwired Planet v Huawei Techs. Co. Ltd.*, [2017] EWHC 711 (Pat), Case No: HP-2014-000005, ¶139 (EWHC Apr. 5, 2017) (“a FRAND approach will allow for starting offers which leave room for negotiation”); *Cf. Ericsson v. D-Link*, 2013 U.S. Dist. LEXIS 110585, \*87 (E.D. Tex. Aug. 6, 2013) (holding that, in RAND licensing under the IEEE patent policy, “both sides’ initial offers should be viewed as the starting point in negotiations. Even if a court or jury must ultimately determine an appropriate rate, merely seeking a higher royalty than a potential licensee believes is reasonable is not a RAND violation”); *Microsoft v. Motorola*, 864 F.Supp.2d 1023, 1038 (W.D. Wash. 2012) (“Because the IEEE and the ITU agreements anticipate that the parties will negotiate towards a RAND license, it logically does not follow that initial offers must be on RAND terms.”). Huawei thus failed to demonstrate that PanOptis negotiated in bad faith or that PanOptis’ course of conduct was not FRAND.

were filed in this case (and indeed, at least up to the redirect testimony of Mr. Warren during the bench trial itself), there was no case or controversy between the parties regarding an offer that did not have the infrastructure equipment component. Therefore, this Court does not have jurisdiction over such a hypothetical offer.

**[DCL22]** Second, a patent owner seeking a FRAND license from an alleged infringer must “present[] to that infringer a specific, written offer for a license on such terms, specifying, in particular, the royalty and the way in which it is to be calculated.” Judgment ECLI:EU:C:2015:477 at ¶ 71, *Huawei Techs. Co. v. ZTE Corp.*, No. C-170/13 (July 16, 2015), <http://curia.europa.eu/juris/liste.jsf?num=C-170/13>. The oral modification that Mr. Warren made during his redirect examination does not suffice to present to the Court a written FRAND offer that it should adjudicate. Rather, the Court must limit its consideration to the written September 2017 offer.

**[DCL23]** Third, a material change in the terms of an offer, such as dividing up the end user device and infrastructure components, would



**PLAINTIFFS' PROPOSAL****DEFENDANTS' PROPOSAL****2. PanOptis' Offer Does Not Discriminate Against Huawei**

[PCL23] Huawei failed to demonstrate that PanOptis' September 2017 offer discriminates against Huawei. PanOptis presented expert testimony that there were two relevant, comparable licenses [REDACTED]

[REDACTED]. PFF81-

PFF85. Huawei and its expert, Dr. Becker, did not dispute the comparability of these licenses. *See* PFF84. [REDACTED]

[REDACTED] PFF81-

PFF85. Huawei did not present any evidence to the contrary, or cross-examine Dr. Akemann on the issue. PFF84.

**3. PanOptis' Offer Is Fair and Reasonable**

[PCL24] Huawei also failed to demonstrate that PanOptis' offer is not "fair and reasonable." PanOptis presented un rebutted evidence from Dr. Akemann that its offer was "fair and reasonable" viewed in light of

amount to a revocation of the original offer. *See United Steelworkers of Am. v. Bell Foundry Co.*, 626 F.2d 139, 141 (9th Cir. 1980) ("under traditional rules governing the formation of contracts, a modification of an offer operates as a revocation of that offer"); *Sinram-Marnis Oil Co. v. City of New York*, 139 A.D.2d 360, 371–72 (N.Y. App. Div. 1988) ("material change in an offer once communicated to the offeree constituted a revocation of the original offer terminating the offeree's power to accept the original offer"); Restatement (Second) of Contracts § 42 (1981) (same); *see also Carey v. 24 Hour Fitness, USA, Inc.*, 669 F.3d 202, 205–06 (5th Cir. 2012) (retroactive modification of an arbitration agreement renders it illusory); *Skodnick v. Rand McNally & Co.*, Civ. A. No. 87–0077, 1987 WL 28091, at \*1 (E.D. Pa. Dec. 14, 1987) ("neither party could change the terms of a binding contract and have it apply retroactively unless there was a mutual understanding and agreement to that effect"). Thus, if the previously indivisible offer is now divisible between an end user device component and an infrastructure component, Count IX should be dismissed because the original offer that

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the value presented in comparable licenses, viewed in comparison to benchmark rates from Ericsson, and viewed in light of a “top-down” analysis of the industry aggregate. PFF81-PFF85; PFF92-PFF110.

**[PCL25]** Dr. Akemann’s comparable license analysis demonstrates that the offer to Huawei fairly reflects the reasonable value of PanOptis’ intellectual property, in view of the rates paid in comparable licenses. *See ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010) (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964)). Courts have long recognized that comparable licenses may be the best estimate of a reasonable royalty rate. *See Unisplay, S.A. v. American Elec. Sign Co.*, 69 F.3d 512, 519 (Fed. Cir. 1995) (referring to a prior license agreement, stating “this evidence should carry considerable weight in calculating a reasonable royalty rate”); *Mobil Oil Corp. v. Amoco Chems. Corp.*, 915 F. Supp. 1333, 1353 (D. Del. 1994) (“royalties received by the patentee under prior and existing licenses for patented technology are the ‘most influential factor’ in determining a reasonable royalty”); *CSIRO v. Cisco Systems, Inc.*, 809 F.3d 1295, 1303

was to be the subject of the trial in this case is no longer available. PanOptis corporate representative Ray Warren testified that the September 2017 offer is no longer open. DFF54.

**b) PanOptis’ Refusal to Offer a U.S.-Only License, While Suing Huawei on U.S. Patents, Violates Its FRAND Obligation.**

**[DCL24]** As discussed above, PanOptis has never given Huawei a U.S.-only offer. But, in view of PanOptis’ decision to sue Huawei on its U.S. patents in a U.S. court, and in view of the very minor share of Huawei’s sales in the U.S., and that Huawei has clearly stated its willingness to agree to and desire for a FRAND license covering its US sales, FRAND requires that PanOptis offer Huawei a U.S.-only license, rather than requiring that, in order to get a U.S. license to cover its minimal U.S. sales, Huawei also take a license in other countries where its sales are much greater (e.g., more than 60% in China) under foreign patents not at issue in this litigation. Despite Huawei repeatedly seeking a U.S.-only license and offering to settle the U.S. case, PanOptis has refused to discuss such options with Huawei. DFF58; DFF69–DFF70;

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(Fed. Cir. 2015) (citing case law endorsing the use of a comparable license analysis for valuing patents); *Ericsson v. D-Link*, 773 F.3d 1201, 1227 (Fed. Cir. 2014); *Apple v. Motorola*, 757 F.3d 1286, 1315 (Fed. Cir. 2014) (“[U]sing sufficiently comparable licenses is a generally reliable method of estimating the value of a patent” when calculating damages for infringement of a [standard essential patent].”).

[PCL26] Dr. Akemann’s analysis also demonstrates that Mr. Warren’s calculations, and PanOptis’ resulting offer to Huawei, were conservative in light of the value of PanOptis’ portfolio. PFF81-PFF85; PFF92-PFF110. Dr. Akemann provided uncontroverted evidence that PanOptis’ offer complies with FRAND from an economic perspective, in light of Ericsson’s benchmark rate. PFF92-PFF104. Dr. Akemann testified that Huawei itself suggested that PanOptis utilize Ericsson’s rate as a benchmark during negotiations. PFF99. To perform his analysis, Dr. Akemann began with the rate derived from a comparable license adjudication in a foreign court, and from the actual rate from Huawei’s license with Ericsson. PFF92-PFF104; PX 0786 at ¶¶414-55 (performing

DFF73–DFF77.

[DCL25] The facts in this case are analogous to those in the *Motorola* case before the European Commission. Between April and June of 2011, Motorola sued Apple in Germany on a number of SEPs and non-SEPs and sought injunctions against Apple. Case AT.39985, *Motorola - Enforcement of GPRS standard essential patents*, 2014 E.C.R. 2892 at ¶¶ 115-117. During the course of proceedings, Apple made a series of “Orange Book” offers to Motorola; in the second offer, Apple proposed to license all of Motorola telecommunication SEPs covering the territory of Germany. *Id.* at ¶ 125(a). Motorola rejected the second Orange Book Offer for reasons including “*the offer was not worldwide in scope but covered only Germany.*” *Id.* at ¶ 127(f) (emphasis added). The Commission disagreed and held that Apple’s Germany-specific license offer was FRAND, *id.* at ¶¶ 303, 420, 433, 437-438, 440-441, 444, 490-491, 495, 519. The Commission stated that Apple’s offer to license all of Motorola’s SEPs in Germany “was a clear indication of Apple’s willingness to enter into a licensing agreement on FRAND terms and

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comparable license evaluation). As with PanOptis' comparable licenses, these analyses are probative of the actual value of the technology. *See* PCL25, *supra*.

**[PCL27]** To utilize Ericsson's rate as a benchmark, Dr. Akemann compared the number of "actually essential" PanOptis patent families to the number of "actually essential" Ericsson patent families. PFF96. Dr. Akemann relied on the unrebutted testimony of PanOptis' essentiality experts, Mr. Warden and Dr. Haimovich, which, along with the Infringed LTE Patents, supported a total of 54 actually essential 4G LTE patent families in the PanOptis portfolio. *Id.*

**[PCL28]** With respect to the foreign court adjudication benchmark, Dr. Akemann used the number of Ericsson essential patents used by J. Birss in the Unwired Planet decision, 67, for 4G LTE. PFF95-PFF98. Then, accounting for multi-mode, the 3G and 2G families in the Ericsson and PanOptis portfolios, and the Ericsson benchmark rates (e.g., 0.80% for 4G LTE), Dr. Akemann arrived at a FRAND-compliant rate of 0.505% for PanOptis' 4G LTE major market rate. *Id.*

conditions" and Apple's challenge to the validity and infringement of Motorola's SEPs does not amount to unwillingness on Apple's part to enter into a FRAND license. *Id.* at ¶¶ 437, 440, 444. The Commission held that Motorola had abused its dominant position by continuing to seek an injunction against Apple after the second Orange Book Offer. *Id.* at ¶¶ 492-496.

**[DCL26]** Like Motorola, PanOptis violates its FRAND obligations by suing Huawei on U.S. patents and insisting on a global license, despite Huawei's comparatively low sales in the U.S. and Huawei's offer to enter into a U.S.-only license. Admittedly, Motorola sought an injunction against Apple in Germany, and PanOptis is seeking only damages against Huawei in U.S. But PanOptis' lawsuit is coercive in the same way Motorola's was because it seeks to impose a *global* licensing deal on a potential licensee using litigation in a *national* court where the potential licensee has relatively few sales, despite the potential licensee's willingness to enter into a license to the patents issued in the jurisdiction of that national court. *Id.* at ¶ 127; DFF7–DFF8; DFF58; DFF64–DFF65;

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<p>[PCL29] With respect to Huawei's license with Ericsson, Dr. Akemann testified that Huawei itself pointed to the Huawei/Ericsson cross-license as a useful benchmark for the PanOptis portfolio rates. PFF99-PFF104. Based on this license, and again using 54 for the number of PanOptis actually essential 4G LTE patent families, Dr. Akemann estimated a comparative 4G LTE rate of [REDACTED] for PanOptis, which he used as an additional data point in opining that PanOptis' rate fell within the FRAND range. <i>Id.</i></p> <p>[PCL30] PanOptis' September 29, 2017 offer falls within the range</p>	<p>DFF68–DFF71; DFF73–DFF77; <i>cf. Microsoft Corp. v. Motorola, Inc.</i>, No. C10-1823JLR, 2013 WL 2111217, at *2 (W.D. Wash. Apr. 25, 2013) (parties agreed to the court's FRAND determination on a global license). PanOptis' conduct is neither fair nor reasonable because PanOptis insists that a global license is the only viable solution to the parties' dispute even after it sued Huawei in the U.S., which accounts for less than 1% of Huawei's sales.<sup>7</sup> In essence, PanOptis is attempting to use its U.S. SEPs in a U.S. litigation as leverage to impose on Huawei a global license with much wider coverage, much as Motorola was</p>
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<sup>7</sup> Hypothetically, if a majority of a potential licensee's sales are in one country and a SEP patentee sues the potential licensee in that country, the patentee might reasonably insist on a global license to settle the dispute because a global license would not be so different in its coverage from a country-specific license as is the case here. But the case here, where less than 1% of Huawei's sales are in the U.S. warrants requiring PanOptis to allow Huawei to enter into a U.S.-only license. Further, the *Saint Lawrence* case, in which this Court held that a decision to license SEPs on a worldwide basis does not constitute patent misuse, is distinguishable. *See Saint Lawrence Comm'ns LLC v. Motorola Mobility LLC*, No. 2:15-CV-351-JRG, 2018 WL 915125, at \*9–10 (E.D. Tex. Feb. 15, 2018). In *Saint Lawrence*, there was no evidence in the record that Motorola offered to take a U.S.-only license or that Motorola had a very minor share of its sales in the U.S., as is the case for Huawei here.

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of FRAND-compliant rates calculated by Dr. Akemann, which supports the conclusion that it complies with PanOptis' contractual FRAND commitment. *See* PCL28-PCL29, *supra*.

**[PCL31]** Dr. Akemann also demonstrated that PanOptis' offer complied with FRAND, as viewed from the perspective of a "top-down." A "top-down" approach assumes a certain aggregate royalty a certain number of actually essential patents to the standard. PFF105-PFF110; PX 0786. While Huawei presented no evidence of royalty stacking in this case, the reasonableness of Dr. Akemann's top-down approach obviates any such concerns. This is further evidence that PanOptis' offer complies with PanOptis' contractual FRAND commitment.

**[PCL32]** Huawei presented no evidence of royalty stacking in this case. PFF110. Huawei's expert, Dr. Becker, testified on royalty stacking only at a theoretical level, and the evidence shows that Huawei has only entered into between four and five 4G LTE licenses. *Id.* Thus, there is no credible evidence of a royalty stacking concern for Huawei, particularly in light of Dr. Akemann's top-down check of PanOptis' offered rate. *See*

attempting to use its German SEPs in a Germany litigation as leverage to impose on Apple Motorola's licensing terms for a global license.

**[DCL27]** The argument that it is more efficient to enter into a global license, while true for a negotiated license, is not persuasive in the context of a litigation in a jurisdiction where only a very small percentage of the licensee's global sales take place and where the licensee has requested and is willing to enter into a license for that country alone. Once the negotiations over a global license broke down, and PanOptis made the decision to sue Huawei in the U.S. and Germany on a country-by-country basis, PanOptis' alleged efficiency gain became illusory because litigations are costly and time-consuming by nature. The initiation of litigation by PanOptis marks a watershed at which the efficiency from global license *negotiation* likely ends and the FRAND obligation associated with country-by-country *litigation* arises in the context of a case such as this.

**[DCL28]** The European Commission rejected an argument by Motorola that portfolio licensing generated efficiencies by avoiding

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PCL31, *supra*.

[PCL33] Huawei presented no analysis in response to support its contention that PanOptis' offer was not fair or reasonable, and failed to demonstrate the same during cross-examination.

**4. The Court May Rely on the Jury Verdict When Assessing a FRAND Royalty**

[PCL34] In considering whether PanOptis' global portfolio offer complied with its FRAND commitment, the jury verdict is probative. Both parties presented evidence related to FRAND and the FRAND commitment to the jury. The jury was presented with sufficient evidence and properly instructed on how to calculate a reasonable royalty. In addition, the jury was instructed to assess a reasonable royalty consistent with PanOptis' FRAND obligation. PFF89.

[PCL35] The Court must presume that the jury correctly followed the Court's instructions. *See Zafiro v. United States*, 506 U.S. 534, 540-41 (1993). Accordingly, the jury's calculation of a reasonable royalty is probative in assessing whether PanOptis' global offer is consistent with

"patent-by-patent licensing negotiations" and "patent-by-patent litigation on validity and infringement." Case AT.39985, *Motorola - Enforcement of GPRS standard essential patents*, 2014 E.C.R. 2892 at ¶ 488. The European Commission stated that (1) Apple's offer of a Germany-only license would also generate efficiencies, and (2) "it is in the public interest to allow challenges to the validity of patents and to ensure that royalties are not unduly paid." *Id.* at ¶ 490-491. Here, a license to Huawei cover PanOptis' U.S. patents would generate efficiencies by disposing of the comparatively small U.S. part of the parties' dispute, which is the only part before this Court. Huawei's defenses against PanOptis' litigations include validity challenges, which can improve efficiencies by eliminating invalid patents from PanOptis' alleged SEP portfolio. Moreover, the fact that PanOptis chose to enforce its patent rights against Huawei in Germany and the U.S. shows that its alleged concern for efficiency is outweighed by practical benefit of damages actions. *See id.* at ¶ 519 ("As for the allegedly slow, costly and retrospective nature of damage actions, the fact that Motorola is seeking damages and rendering

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PanOptis' FRAND obligation. The jury determined that a [REDACTED] award for the infringement of the four Infringed LTE Patents reflects a reasonable royalty in light of PanOptis' FRAND commitments. PFF90. This award works out to a rate of at least [REDACTED] of the average Huawei device. PFF91. The jury's rate, which covers only four of PanOptis' essential patents, and which is greater than the "major market" rate offered to Huawei for a license to PanOptis' entire portfolio of essential patents, therefore, supports the conclusion that PanOptis' September 29, 2017 offer complies with FRAND.

### 5. Conclusion

[PCL36] This Court has jurisdiction to resolve PanOptis' Count IX, a claim for declaratory judgment that PanOptis has not breached its contractual commitment to license its essential patents on FRAND terms and conditions to Huawei.

[PCL37] Huawei bears the burden to show that PanOptis breached its contractual commitment.

[PCL38] PanOptis' offer of September 29, 2017 was made in good

of accounts from Apple in Germany shows that Motorola nonetheless considers that such actions do provide it with a certain level of protection of its commercial interests").

### 2. PanOptis' Request That This Court Issue a Declaration as to Its Non-U.S. Patents Would Contravene This Court's Earlier Order Dismissing Count IX as to Non-U.S. Patents, Exceed This Court's Jurisdiction and Offend International Comity.

[DCL29] The Court has previously dismissed Count IX to the extent it covers non-U.S. patents. Dkt. 214, 246.

[DCL30] PanOptis acknowledges that for this Court to "adjudicate infringement, validity, enforceability, or damages for foreign patents . . . would be improper under *Voda v. Cordis Corp.*, 476 F.3d 887 (Fed. Cir. 2007)." Dkt. 279 at 2. As the Court has already noted, "Courts in other countries apply their own law governing FRAND compliance and royalty rate determinations, and this law, like foreign infringement law, can be very different from United States law." *See* Dkt. 145 at 9 n.4; *see also*, *e.g.*, Dkt. 88-2 at ¶ 4 and 88-5 and 88-6 (Wang Decl., and exhibits;



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faith, and complies with PanOptis' FRAND commitment.

[PCL39] Huawei has failed to prove that the following worldwide rates for PanOptis' portfolio of patents essential to the cellular telecommunication standards are discriminatory, unreasonable, or unfair:

	Major Market	Other Market	China
4G/3G/2G	0.259%	0.130%	0.100%
3G/2G	0.077%	0.039%	0.027%
2G	0.116%	0.058%	0.048%

[PCL40] PanOptis' licensing practices with regard to its portfolio of essential patents are fair, reasonable, and non-discriminatory.

Chinese court decisions on FRAND in Huawei Chinese litigation against InterDigital, applying Chinese law); Claudia Milbradt, *Landmark decisions on FRAND licensing in Germany: What to look out for in negotiations*, Business Law Magazine (Mar. 2017), <https://www.businesslaw-magazine.com/2017/11/23/landmark-decisions-on-frand-licensing-in-germany-what-to-look-out-for-in-negotiations/> (“outlin[ing] the steps necessary to remain FRAND compliant under German Law”); Takanori Abe, *Japan: IP High Court Rules in Apple v. Samsung FRAND Case*, Managing Intellectual Property (Sept. 1, 2014), <http://www.managingip.com/Article/3375734/Japan-IP-High-Court-rules-in-Apple-v-Samsung-FRAND-case.html> (setting FRAND royalty); *Korea Fair Trade Commission Releases Full Decision and Finding in Qualcomm Case*, The Am. Consumer Institute. Ctr. For Citizen Research (2017), <http://www.theamericanconsumer.org/korea-fair-trade-commission-releasesfull-decision-finding-qualcomm-case/> (applying Korean Monopoly Regulation and Fair Trade Act to fine U.S. company for FRAND violation).

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[DCL31] As the Court recognized in granting Huawei's motion to dismiss, this Court's adjudication of FRAND compliance of PanOptis' September 2017 offer, if standing and jurisdiction exist at all, is limited to PanOptis' U.S. patents. Determining FRAND royalties for SEPs depends on U.S. damages law principles. *See, e.g., Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1232 (Fed. Cir. 2014) ("As with all patents, the royalty rate for [standard essential patents] must be apportioned to the value of the patented invention."). The same principles of U.S. law on patent royalties may not apply to the Chinese, German, and other non-U.S. patents. Moreover, for this Court to rule on FRAND royalties or FRAND compliance as to non-U.S. patents would imply a judgment as to infringement, validity and value of non-U.S. patents, which would be counter to principles of international comity. *See, e.g., Voda*, 476 F.3d at 897–905 (international comity dictates that district courts should decline the exercise of supplemental jurisdiction over non-U.S. patents); *Fairchild Semiconductor Corp. v. Third Dimension (3D) Semiconductor, Inc.*, 589 F. Supp. 2d 84, 91 (D. Me. 2008) ("it is almost

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always an abuse of discretion” to assume supplemental jurisdiction over a foreign patent infringement claim); Dkt. 286-1 at 64 (“ETSI Guide on IPRs”), § 4.3 (“the national courts of law have the sole authority to resolve IPR disputes”). Therefore, the Court cannot declare that PanOptis’ proposed rates in its September 2017 offer comply with FRAND, given that the offer covers non-U.S. patents and PanOptis has not offered separate U.S.-only terms (and refuses to do so going forward), and asserts that it is impossible to discern any U.S.-only rates in its previous offer.

**[DCL32]** The territorial nature of FRAND proceedings involving SEPs, such as Count IX, is confirmed in other cases in the U.S. and abroad. In *Apple Inc. v. Qualcomm Inc.*, the court stated that “Apple is not obligated to accept a worldwide FRAND license from Qualcomm” and Apple “had and has a reasonable interest in challenging Qualcomm’s patents forum by forum.” No. 3:17-cv-108, 2017 WL 3966944, at \*12–13 (S.D. Cal. Sept. 7, 2017). The court acknowledged that “[a]fter all, and as neither party disputes, this Court cannot adjudicate or enforce the patent

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law of the U.K., China, Japan or Taiwan.” *Id.* at \*13. “Qualcomm’s practice of licensing its SEPs on a portfolio-level basis insulates Qualcomm from challenges to the validity or essentiality of its patents because licensees do not know what patents are included in [its] portfolio.” *Id.* “Accordingly, Apple brought patent claims in the various foreign suits as a means to verify that Qualcomm’s various patents are, in fact, valid and essential before Apple agrees to license Qualcomm’s global patent portfolio.” *Id.*

[DCL33] Here, the parties have been engaged in litigations in Germany and China. DFF14–DFF15; *see Taylor v. Charter Med. Corp.*, 162 F.3d 827, 830 (5th Cir. 1998) (“[A] court may take judicial notice of a ‘document filed in another court to establish the fact of such litigation and related filings.’”) (citation omitted). This Court should not adjudicate or enforce the patent law of other countries, and should instead leave it for national courts in other countries to determine the infringement, validity, and FRAND rates of PanOptis’ SEPs in those countries.

[DCL34] In the *Huawei v. InterDigital* case, the Guangdong High

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People's Court in China settled a FRAND royalty between Huawei and InterDigital for InterDigital's Chinese SEPs. The Chinese trial court set a FRAND rate for InterDigital's Chinese SEPs of no more than 0.019% based on considerations such as the quantity, quality and value of the Chinese SEPs, the relevant licensing situations in the industry, and the ratio of the number of InterDigital's Chinese SEPs *compared* to all of its SEPs worldwide. *Huawei Tech. Co. v. InterDigital Commc'ns Inc.*, Oct. 16, 2013, at 46–47 (Guangdong Province High People's Ct. Civ. Third Instance No. 305). The Guangdong High People's Court affirmed the trial court's findings and conclusion. *Id.* at 58–63. Huawei's Chinese litigation against PanOptis seeks the same kind of relief as to PanOptis' Chinese patents, and the Court, in declining to enjoin that litigation, has already determined that the Chinese litigation can proceed without interfering with this case. Dkt. 137. This Court should similarly refrain

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from adjudicating FRAND issues as to patents in China and other countries outside the U.S.<sup>8</sup>

**[DCL35]** If, as PanOptis advocates, a single national court in the world could adjudicate FRAND rates for a patentee's entire global portfolio, despite objection from a licensee whose sales in that country are very low, this would lead to a race between each potential licensor and licensee to pick the one single court in the world most favorable to it, regardless of where the bulk of the relevant sales take place. The only "basis" for such an action in any particular jurisdiction would be the presence of some SEPs in that jurisdiction. PanOptis and Huawei have been engaged in litigations in China and Germany, as well as here. If this Court chose to adjudicate FRAND rates for an entire global portfolio, then, under the same rationale, a court in China or Germany could set

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<sup>8</sup> In a related case between Huawei and InterDigital, the Guangdong High People's Court held that InterDigital's bundling of essential patents in a global portfolio did not violate China anti-monopoly law. *Huawei Tech. Co. v. InterDigital Commc'ns Inc.*, Oct. 21, 2013, at 39, 43, 57 (Guangdong Province High People's Ct. Civ. Third Instance No. 306).

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FRAND rates for PanOptis' global portfolio, including its U.S. patents. Apart from races to the courthouse door, this could lead to inconsistent judgments between U.S. courts and courts in other countries because this Court and other courts would likely use their varying respective different laws and principles to decide those issues. PanOptis has SEPs in the U.S., China, U.K., Germany, and other regions of the world. The potential for inconsistent judgments across all those jurisdictions is significant.

**[DCL36]** Indeed, if there were to be any single national court in the world that should decide what FRAND rates Huawei should pay for PanOptis' global portfolio, it should be a court in China because more than 60% of Huawei's handset sales occur in China and the China market would be of central importance to PanOptis' license to Huawei. In contrast, the U.S. accounts for only less than 1% of Huawei's handset sales. In July 2017, Huawei filed a case against PanOptis in Shenzhen, China, seeking a determination of the FRAND licensing terms for PanOptis' Chinese SEP portfolio. Dkt. 88, 2-3. The case is expected to dispose of the parties' dispute as to the Chinese patents under Chinese

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law. International comity requires that, in the event of litigation in a particular country, the FRAND rates for the patents in that country should be determined by the courts in that country.

**3. PanOptis Does Not Have Any Evidence that the September 2017 Offer as to the U.S. Patents Complies with FRAND.**

**[DCL37]** Because this Court has dismissed Count IX as to the non-U.S. patents, Dkt. 214, 246, the adjudication under Count IX as to the September 2017 offer is limited to U.S. patents. PanOptis' expert Dr. Akemann does not have an opinion on the offer's FRAND compliance as to only the U.S. patents. DFF76–DFF77. PanOptis does not put forward any evidence that the September 2017 offer as to the U.S. patents complies with FRAND. As was established through PanOptis' witnesses and experts, PanOptis has not made any offer from which a U.S. rate for PanOptis' U.S. SEPs can be discerned, and therefore Huawei has satisfied any burden it may have to show that PanOptis has not complied with its FRAND obligations with respect to U.S. SEPs. DFF58; DFF69–



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DFF70; DFF73–DFF77.

**4. PanOptis' September 2017 Offer Violates FRAND Because It Proposes Rates That Are Higher than FRAND Rates Calculated by Dr. Akemann.**

[DCL38] Huawei has significant 2G device sales. DFF9.

[DCL39] PanOptis' September 2017 offer as to 2G End User Device rates violates FRAND because the rates for those devices are higher than the corresponding FRAND rates calculated by Dr. Akemann. DFF95–DFF96.

[DCL40] Huawei's corporate affiliates have significant infrastructure equipment sales. DFF10–DFF11; DFF13. PanOptis' September 2017 offer as to Infrastructure Equipment rates violates FRAND because the rates for those devices are higher than the corresponding FRAND rates calculated by Dr. Akemann. DFF97–DFF99.

**5. Dr. Akemann's Opinion that PanOptis' September 2017 Offer Complies with FRAND on a Global Basis, Even If Relevant to Count**

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**IX, Is Unreliable.**

**a) Dr. Akemann's Assumption of 54 LTE ASEPs, 11 3G ASEPs, and 3 2G ASEPs Is Unsupported and Renders His Opinion Unreliable.**

**[DCL41]** Dr. Akemann does not have a reliable basis for asserting that PanOptis has 54 patent families actually essential to LTE / 4G standards, 11 patent families actually essential to 3G standards, and 3 patent families actually essential to 2G standards, as opposed to a much lower number of patent families that are actually essential to these standards. *See* DFF19–DFF50; DFF82–DFF86. Without a reliable basis for these assumptions, Dr. Akemann's conclusions that the September 2017 offer complies with the FRAND obligation should not be accorded any weight.

**[DCL42]** Dr. Akemann obtains the number of purported ASEPs from PanOptis' other witnesses. In particular, with the exception of the four LTE patents that were asserted in this case, Dr. Akemann relies on conclusory testimony from Mr. Warden and Dr. Haimovich. DFF84–DFF85. These witnesses conclude, in essence, that patents in each of the

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purportedly essential patent families, would be infringed by the practice of the standard. DFF32–DFF43. But conclusory expert testimony that a patent is infringed by the practice of a standard, without any analysis of the patent claims or comparisons of such claims to the accused standard, is not sufficient to establish essentiality. As courts in this district have found, “[i]t is not sufficient [for an expert] simply to list the resources they utilized and then state an ultimate opinion without some discussion of their thought process,” as Mr. Warden and Dr. Haimovich have done here. *Elder v. Tanner*, 205 F.R.D. 190, 194 (E.D. Tex. 2001). Such testimony “will not assist the trier of fact in determining the case.” *Id.*

**[DCL43]** The broad, conclusory statements by Mr. Warden and Dr. Haimovich are not evidence, should be disregarded by the finder of fact, and do not adequately support Dr. Akemann’s analysis. *Intellectual Sci. & Tech., Inc. v. Sony Elecs., Inc.*, 589 F.3d 1179, 1184 (Fed. Cir. 2009) (“An expert’s unsupported conclusion on the ultimate issue of infringement will not alone create a genuine issue of material fact.”) (citation omitted); *Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1320

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(Fed. Cir. 2006) (conclusory expert testimony is not sufficient); *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1329 (Fed. Cir. 2001) (“Broad conclusory statements offered by Telemac’s experts are not evidence and are not sufficient to establish a genuine issue of material fact.”) (citations omitted); *Dominion Energy, Inc. v. Alstom Grid LLC*, 725 F. App’x 980, 986 (Fed. Cir. 2018) (non-precedential) (holding that the fact-finder’s verdict may not be supported only by conclusory and unsupported expert testimony); *Neopost Industrie B.V. v. PFE Int’l, Inc.*, 403 F. Supp. 2d 669, 676 (N.D. Ill. 2005) (“A plaintiff in a patent infringement case cannot meet its burden of proof by resting on a witness’s summary testimony. Thus, a witness’ general opinion that an accused device infringes a patent, standing alone, is insufficient to establish infringement.”) (citations omitted).

**[DCL44]** As one particular example of the conclusory nature of PanOptis’ expert testimony, Dr. Haimovich and Mr. Warden’s opinions are unreliable because they failed to analyze properly the scope of the claims of those patent families in light of intrinsic and extrinsic evidence.

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DFF40; DFF43. *See Philips v. AWH Corp.*, 415 F.3d 1303, 1315–19 (Fed. Cir. 2005) (en banc) (patent claims must be construed in light of intrinsic and extrinsic evidence).

**[DCL45]** In disputing the accuracy of Dr. Akemann's ASEP count assumption, it is not necessary for Huawei to go through the substantial undertaking of having its technical experts point out each and every way in which PanOptis' purported ASEPs are not practiced by the standards. Rather, it is enough to "show[] the incorrectness or inadequacy of the factual assumptions [and] the reasoning" behind the expert opinion. *Mims v. United States*, 375 F.2d 135, 143–44 (5th Cir. 1967) (internal quotation marks omitted).

**[DCL46]** The Court should also discredit Mr. Warden's testimony as biased because he is a PanOptis employee whose compensation depends to a significant degree on the financial performance of PanOptis, which in turn depends on the outcome of this litigation. DFF41–DFF42. *See Hebert v. Rogers*, 890 F.3d 213, 225–26 (5th Cir. 2018) (holding that the jury may reject even unanimous expert testimony for objective

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reasons; expert testimony could be rebutted with evidence that the expert had an interest or bias); *Collins v. Wayne Corp.*, 621 F.2d 777, 784 (5th Cir. 1980) (“A pecuniary interest in the outcome of a case may, of course, bias a witness.”). PanOptis bears the burden of proof on the essentiality of its own patents, and it fails to meet that burden for at least the unasserted 50 patent families. As a result, at the very most, PanOptis has only introduced evidence from which a factfinder could permissibly conclude that it has four actually essential patent families—those of the four wireless patents asserted at trial. Reducing the PanOptis ASEP count to four families would greatly reduce the various alleged FRAND rates Dr. Akemann calculates in PX 2075A, upon which his FRAND opinion depends.

[DCL47] PanOptis’ internal business records claim charts, *see* DFF44–DFF50, also are insufficient to support PanOptis’ claimed number of ASEPs. The claim charts consist solely of excerpts of standards mapped to claim limitations, without any annotations or explanations. DFF48. Courts have consistently held that this is

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insufficient to establish that a product is covered by a particular patent claim. *Telemac*, 247 F.3d at 1329 (“Broad conclusory statements offered by Telemac’s experts are not evidence and are not sufficient to establish a genuine issue of material fact.”) (citations omitted); *Dominion Energy*, 725 F. App’x at 986 (holding that the fact-finder’s verdict may not be supported only by conclusory and unsupported expert testimony); *Neopost*, 403 F. Supp. 2d at 676 (finding conclusory testimony insufficient to satisfy burden of infringement). Indeed, PanOptis itself admits that the charts are not sufficient by themselves to prove essentiality. DFF50. These charts should further be discredited as biased, as they were prepared by PanOptis employees. DFF47; *see* DCL46.

**[DCL48]** The lack of linkage between the admitted claim charts and the opinions of Dr. Haimovich and Dr. Warden, who did not create or opine on the accuracy of those particular claim charts, DFF44, means that those claim charts do not support Dr. Akemann’s assumption that there are 54 PanOptis SEPs. PanOptis failed to supply any such linkage despite the Court’s explicit warning that such would be required. 8-27 Bench

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Trial Tr. 112:9–117:8.

**[DCL49]** Dr. Akemann also relies on PanOptis' technical experts' opinion that the four Asserted LTE Patents, the '284, '569, '293, and '216 patents, are essential to the LTE standards. The technical experts' opinions are unreliable and the four Asserted LTE Patents may be held not essential or invalid. For example, Dr. Akemann had previously relied on PanOptis' technical experts' opinion that the '833 patent is essential to the LTE standards. After PanOptis dropped the '833 patent for trial and this Court found that Huawei does not infringe the '833 patent as a matter of law, Dr. Akemann's assumption of ASEPs in PanOptis' portfolio changed from 55 to 54. DFF24–DFF31; DFF86.

**[DCL50]** Dr. Akemann's assumption that 54 patent families in PanOptis' portfolio are actually essential to the LTE standard is further suspect, and should not be accorded any weight, because it results in approximately 62–65% of PanOptis' portfolio of declared SEPs being actually essential. This is almost two times higher than the 34% ratio from the report prepared by third party PA Consulting, which Dr.



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Akemann cited in his expert report. DFF82–DFF83.

**b) Dr. Akemann's Top-Down Analysis  
Should Not Be Accorded Any Weight.**

**[DCL51]** Further, Dr. Akemann's top-down analysis should not be accorded any weight, as his assumption of a maximum aggregate LTE royalty burden of 10% is unsupported and renders his top-down analysis unreliable. DFF100–DFF103.

Dated: September 17, 2018.

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**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the above and foregoing document has been served on all counsel of record via the Court's ECF system on September 17, 2018.

/s/ Kevin L. Burgess

Kevin L. Burges

**CERTIFICATE OF AUTHORIZATION TO SEAL**

I hereby certify that the attached hereto and discussed herein are documents marked as Confidential pursuant to the Court's Protective Order. Accordingly, this Motion is filed under seal.

/s/ Kevin L. Burgess

Kevin L. Burgess